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ABSTRACT

The main goal of the Vocational Placement Project of the Rutgers Medical School Community Mental Health Center (New Jersey) is to investigate ways to improve vocational rehabilitation and educational programs for the chronically mentally ill. A quasi-experimental design was used to evaluate a pilot vocational rehabilitation program to determine if there was a difference in the number of days employed for those who participated in the program compared to a control group that did not. An analysis of covariance showed significance only on five variables. Lack of great differences between the experimental and control groups occurred because not all subjects in the experimental group actually participated in the program. When this problem was corrected, participation in group and individual sessions was significant in almost every instance. The number of days worked in the program correlated positively with the number of individual and group counseling sessions. Participation in the program was also found to relate positively to work motivation, career maturity, and several ego functions. No significant differences were found between the experimental and control groups for the number of psychiatric symptoms reported by subjects. In fact, when previous employment was statistically controlled, program subjects were less symptomatic than control group subjects. As a result of the experiment, a vocational rehabilitation program in eight phases was proposed. It was recommended that these phases be supplemented by individual sessions and a work support group. (KC)

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SREG-207

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# FINAL REPORT
# OF THE
# VOCATIONAL PLACEMENT PROJECT (SREG207)

1981 - 1982

NEW JERSEY DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION AND CAREER PLANNING

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Project Duration

July 1, 1981
Beginning Date

June 30, 1982
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The Contractors undertaking this project were encouraged to express fully their judgments in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official funding agency positions or policies.

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PROJECT TITLE: Vocational Placement Project (SREG 207)

LEGAL NAME OF APPLICANT DISTRICT, INSTITUTION OR AGENCY: University of Medicine and Dentistry of New Jersey Community Mental Health Center of Rutgers Medical School

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## ABSTRACT

## DESCRIPTION OF PROJECT

(Use this sheet and no more than one other to type in single-spaced form a statement of project objectives, procedures that were followed, state and local priorities emphasized and the expected contribution of the project to vocational education.)

The main goal of the Vocational Placement Project is to investigate ways to improve vocational rehabilitation and education programs for the chronically mentally ill. A quasi-experimental design was used to evaluate a pilot vocational rehabilitation program to determine if there was a significant difference in the number of days employed for those who participated in the program compared to a group of control group subjects who did not take part in a program. In addition, several vocational and clinical variables were examined in order to understand more about the impact and interaction of important variables in the vocational rehabilitation process.

When analysis of covariance was used to compare the program group and the control group after a seven-month vocational rehabilitation program, there were few significant differences on the variables of interest. The only significant findings in the predicted direction were for five ego function ratings: reality testing, judgment, regulation and control of drives, thought processes and adaptive regression in the service of the ego (ARISE).

The lack of significant differences between the experimental and control groups on the other variables can be explained by the fact that not all subjects in the experimental group actually participated in the program. When participation in group and individual sessions were correlated with the outcome variables, the correlations were significant in almost every instance. Number of days worked in the program correlated .58 ($p<.05$) with the number of individual counseling sessions and .44 ($p<.10$) with the number of group sessions. Participation in the program was

also found to be correlated significantly with motivation to work (.69, $p<.01$), career maturity ($p<.10$) and several of the ego functioning scales ($p<.10$). These findings highlight the importance of motivation to work as an important variable in both program participation and employment status.

There were no significant differences between the experimental and control groups (or correlation with program participation) for the number of psychiatric symptoms reported by subjects. In fact, when previous employment was statistically controlled, program subjects were less symptomatic than control group subjects. This finding suggests that rather than being experienced as a stressor, vocational rehabilitation tends to decrease psychiatric symptomotology reported by the chronically mentally ill.

Because of methodological problems, it was not possible to assess the effects of the pilot program on subjects' self-esteem and general level of functioning.

Results were discussed in reference to their implications for program development. A vocational rehabilitation program was proposed in eight phases: I. Recruitment/Screening, II. Assessment, III. Planning, IV. Work Values, V. Career Maturity/Self-Esteem, VI. Job Search Skills, VII. Work Adjustment and VIII. Assessment/Follow-up. It was recommended that these phases be supplemented by individual sessions and a work support group.

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## TABLE OF CONTENTS

| Chapter | | Page |
|---|---|---|
| | TITLE | i |
| | DISCLAIMER | ii |
| | ABSTRACT | iii |
| | ACKNOWLEDGEMENTS | v |
| | TABLE OF CONTENTS | vi |
| | LIST OF TABLES | viii |
| A. | INTRODUCTION | 1 |
| | Career Maturity | 4 |
| | Self-Esteem | 5 |
| | Motivation to Work | 5 |
| | Ego Functions | 6 |
| | Disability | 6 |
| | Summary | 7 |
| B. | PROCEDURES | 8 |
| | Objectives | 8 |
| | Subjects | 8 |
| | Instrumentation | 9 |
| | Career Maturity Inventory-Competence Test | 9 |
| | Career Maturity Vignette | 10 |
| | Modified Rosenberg Self-Esteem Scale | 10 |
| | SCL-90 | 10 |
| | Katz Social Adjustment Scale | 11 |
| | Work-Related Activities Scale | 12 |
| | Bellak's Ego Functioning Scale | 12 |
| | Employment History | 13 |
| | Intervention | 13 |
| | Method | 16 |
| | Analysis | 16 |
| C. | RESULTS | 18 |
| | Demographic Data | 18 |
| | Reliability | 20 |
| | Analysis of Covariance | 22 |
| | T-Tests | 25 |
| | Correlations: Counseling and Other Variables (Experimental Group) | 27 |
| | Career Maturity Vignette Ratings | 30 |

D. INTERPRETATION AND DISCUSSION OF FINDINGS 33

- Introduction 33
- Vocational Rehabilitation Outcome/Employment Status 33
- Clinical Outcome 34
- Career Maturity Outcome 39
- Program Participation 40
- Implications for Work 42
- Limitations of Study and Suggestions for Future Research 42
- Recommendations for Future Research 43

E. DISSEMINATION AND IMPLEMENTATION 46

REFERENCES 47

APPENDIX I
APPENDIX II
APPENDIX III
APPENDIX IV
APPENDIX V

## LIST OF TABLES

| TABLE | | PAGE |
|---|---|---|
| 1. | Frequency Distributions for Selected Demographic and Biographical Variables in the Sample | 19 |
| 2. | Frequency Distribution for Diagnostic Categories in the Sample | 20 |
| 3. | Kuder Richardson Reliability Coefficients for the Pre-test and Post-test Measures | 21 |
| 4. | Analyses of Covariance of Outcome Measures | 23 |
| 5. | Analysis of Covariance of the Post-test Work Related Activities Scale | 23 |
| 6. | Analysis of Covariance of the ADL Subscale Post-test Scores | 24 |
| 7. | Analyses of Covariance of the Career Maturity Inventory (CMI) | 25 |
| 8. | Analysis of Covariance of Total Length of Time Worked During the Pilot Program | 25 |
| 9. | T-tests of the Ego-Functioning Scales - Characteristic Ratings | 26 |
| 10. | Significant Correlations between Individual Counseling Time for Subjects in the Experimental Group and Other Variables | 28 |
| 11. | Significant Correlations between Time Spent in Group Counseling by Subjects in Experimental Group and Other Variables | 29 |
| 12. | Ratings of Career Maturity Vignettes of Subjects in the Experimental Group During Pre-program and Post-program Periods | 31 |
| 13. | Ratings of Career Maturity Vignettes of Control Group Subjects During Pre-program and Post-program Periods | 31 |
| 14. | Ratings of Subjects' Career Maturity Vignettes During the Pre-program Period | 32 |
| 15. | Ratings of Subjects' Career Maturity Vignettes During the Post-program Period | 32 |

## A. INTRODUCTION

The Rehabilitation Act of 1973 lists as its first purpose the development of plans for providing vocational rehabilitation services to disabled persons so that they may "prepare for and engage in gainful employment." (1) However, reports in the literature have shown that only between 15 and 40% of the chronically mental ill work (2,3,4). Gunderson and Mosher (5) estimated that schizophrenic persons living in the community account for 50% of the loss of productivity of all discharged patients in the United States each year and conservatively translated this financial loss to be between 7.5 and 10 billion dollars in 1968.

The Federal Government paid almost 2 billion dollars last year to half a million psychiatrically disabled persons through the Social Security Insurance Disability (SSID) Program alone. Between 1970 and 1980 the total number of SSID beneficiaries increased 75% and the total amount of benefits grew fivefold. The effects of the eligibility reviews mandated by the Social Security Disability Amendments of 1980 and the Social Security Administration's stricter interpretations of these rules and regulations have resulted in terminating disability benefits to 106,000 families between October, 1981 and April, 1982. Although mental disorders account for 11% of all disabilities, state officials reported that approximately one-third of the people losing Federal benefits have psychiatric disabilities (6).

Many contend that mentally disabled persons who lose Federal benefits will turn to state and local public assistance programs further increasing welfare costs (6). This trend of increasing demands on the public assistance programs as a result of deinstitutionalization can be seen in the fourfold increase to Aid to the Permanently and Totally Disabled (APTD) between 1968 and 1973. In 1968 APTD spent $42.5 million for all forms of mental illness and in 1973 the comparable figure was about $600 million and about $149 million of this amount was spent on schizophrenic persons living in the community (5).

Gunderson and Mosher (5) reported that estimates of lost productivity and treatment costs might be considerably higher if better figures were available on the cost of maintaining chronically mentally ill patients in the community. They stated further, "In the absence of more effective treatment, the savings from the current trend toward shorter hospitalization cannot be expected to decrease - and may actually increase - the overall cost of schizophrenia to society." The magnitude of the lack of productivity of the chronically mentally ill makes effective treatment programs extremely cost effective. It seems likely that the failure to provide treatment is much more costly than the treatment itself. For instance, if doubling the cost of treatment makes it possible to halve the loss in productivity about $2 billion a year would be saved! (5) Gunderson, et al. (5) recommended greater emphasis on vocational rehabilitation during all phases of treatment and smoother reentry into work situations, and long term support for research into the causes and treatment of schizophrenia.

While it is clear from these statistics that persons suffering from schizophrenia and other chronic mental illnesses need to work for their own financial benefit and the economic well-being of the nation, the chronically mentally ill also have some of the most serious employment problems. Many studies have documented the finding that there is a strong positive relationship between severity of psychopathology and unemployment (7,8,9,10). There is some evidence which suggests that the high rates of unemployment among the chronically mentally ill can be partially attributed to employer bias (11,12,13) and the general availability of work (5,14,15). However, most of these studies were conducted outside the United States and are contrary to a nationwide study of the labor market and the posthospital employment of 957 schizophrenic males nine months after discharge from Veteran Administration mental hospitals (16). In this study Gurel and Lorei (16) concluded that "differences in unemployment levels, urbanization and industrialization of the ex-patient's community do not help to explain why some patients work after leaving the mental hospital while others do not ... constraints on successful vocational adjustment of schizophrenics are less a matter of external limitations and more a function of patient characteristics and effectiveness of rehabilitation efforts."

How effective have vocational rehabilitation programs been in returning schizophrenic and other chronically mentally ill persons to the work force? In an experimental study, Griffiths (17) randomly assigned 50 chronic psychotic patients with employment problems to a treatment or control group. After 15 months, there were no differences in employment status or attitudes toward work between those who had participated in a vocational rehabilitation program and those who had not. In an 18-month follow-up study, Hoppe (18) studied 64 dropouts and 42 successful terminees from a comprehensive rehabilitation center serving the mentally ill. By the end of the follow-up period there were no significant differences between the two groups on employment status or any of the other psychosocial variables assessed. Kuldau (19) reached similar conclusions in a comparative evaluation of comprehensive inpatient services with a psychosocial rehabilitation program which included a sheltered workshop and another inpatient program which emphasized rapid discharge. Ninety-four male psychiatric patients were randomly assigned to the two treatment groups. Outcome data collected 18 months after admission revealed differences between the two treatment groups for patients with a good prognosis and no differentiation for those patients with a poor prognosis (based on MMPI and a diagnosis of schizophrenia).

The results of these studies (17,18,19) typify the failure to vocationally rehabilitate schizophrenic and other chronically mentally ill persons which is reported in much of the current research (20). Despite the rehabilitation efforts of the past decade, most schizophrenic persons remain unemployed. Past failures to vocationally rehabilitate the chronically mentally ill underscore the need to develop new programs and test new approaches to this difficult problem.

While it is clear that rehabilitation programs for the chronically mentally ill have a great deal of difficulty achieving their vocational objectives, the reasons for this lack of success are unclear. Before vocational rehabilitation strategies can be devised and evaluated, the variables which are thought to be associated with rehabilitation outcome must be identified, effectively measured and tested. Vocational research conducted by the Project Director (Ciardiello) and staff (Sobkowski, Klein) over the last three years has addressed this necessity. The first year focused on examining the reliability and validity of available instrumentation and identifying the variables which were significantly related to employment status (21). In the second year, this assessment research was continued and three vocational rehabilitation programs serving the chronically mentally ill were evaluated in order to identify the most effective components of these programs (22). This past year, a pilot vocational program was constructed based on the results of the previous two years of supportive research. The focus of the present study has been the implementation and testing of the pilot program in order to evaluate the effectiveness of strategies to return the chronically mentally ill to the work force (23).

The main goal of the Vocational Placement Project is to investigate ways to improve vocational rehabilitation programs for the chronically mentally ill. A quasi-experimental design was used to evaluate the pilot vocational program, testing the following main null hypothesis: There are no significant differences between experimental and control groups in number of days spent employed.

In addition, various program components were evaluated separately in order to determine their relative impacts. Career maturity and clinical outcomes were examined as well, in order to understand more about the impact and interaction of important variables in the vocational rehabilitation process. Career maturity outcome was measured by the Career Maturity Inventory (CMI) and ratings of vignettes by a vocational expert. Clinical outcome was assessed using the Modified Rosenberg Self-Esteem Scale to measure self-esteem; the Work-Related Activities Scale to measure motivation to work; Bellak's Ego Functioning Scale to measure level of ego functioning; the Katz Social Adjustment Scale to measure level of functioning; and the SCL-90 to measure symptom level. Employment outcome was measured by length of employment and employment status at the end of the project.

The following will examine each of these variables of interest in a systematic attempt to relate prior research and vocational theory to the purposes of this project.

## Career Maturity

Prior to the late 1950's, vocational psychologists emphasized matching men and women to occupations. The analysis of personal and occupational aptitude and interest profiles became a very important part of a rather static matching process which seemed incompatible with dynamic concepts of personality development.

Super (24) linked personality development and vocational choice in his theory of vocational development. Super stated, "In expressing a vocational preference, a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation, he seeks to implement a concept of himself; that in getting established in an occupation he achieves self actualization. The occupation thus makes possible the playing of a role appropriate to the self-concept". Empirical testing of Super's theory has demonstrated that agreement between the self concept and one's own occupational concept is related to occupational preferences and to both internal and external criteria of success and satisfaction (25).

Super's vocational theory also recognized the developmental nature of career decision-making, and Super postulated life stages and the tasks of vocational development appropriate to each stage. Applying the theory of life stages to the analysis of vocational exploration and establishment, Super (1953) introduced the concept of career maturity. According to Super (1957), vocational maturation proceeds along five dimensions: (1) Orientation to Vocational Choice; (2) Information and Planning; (3) Consistency of Vocational Choice; (4) Crystallization of Traits; and (5) Wisdom of Vocational Preferences. Career maturity is defined as one's standing along these dimensions in relation to either chronological age and expected life stage, or the behavior of others with the same developmental tasks. The career development processes have been described in detail by Super (26,27,28), Jordaan (29,30) and Crites (31,32,33). Crites constructed a hierarchical model of career maturity based on the factors he found in his research to be related to realistic career decision making. (See Figure 1 in Appendix I.) Crites (34) also devised the Career Maturity Inventory to assess the attitudes and competencies involved in making realistic vocational choices. It is made up of two scales, an Attitude Scale and a Competence Scale. The five attitudinal clusters surveyed are: (1) involvement in the career choice process; (2) orientation toward work; (3) independence in decision making; (4) preference for career choice factors and (5) conceptions of the career choice process. The Competence Test measures the more cognitive variables involved in choosing an occupation. These include: how well an individual can appraise his/her job-related capabilities; how much he/she knows about the world of work; how adept he/she is at matching personal characteristics with occupational requirements; how foresightful he/she is in planning for a career; and how effectively he/she can cope with the problems which arise in the course of career development. There are five parts to the Competence Test: Self-Appraisal, Occupational Information, Goal Selection, Planning and Problem Solving.

The findings of Searls (35) and Patterson (36) found that unemployable emotionally disturbed subjects tended to have vocational goals that were too narrow and unrealistic. Because of psychometric difficulties, the Vocational Assessment Project (21) was not able to replicate the relationship between employment status and career maturity. However, the results of the evaluation conducted as part of the Vocational Rehabilitation Project (22) and pilot project experiences (23) support the importance of realistic occupational choice in the successful work adjustment of the chronically mentall ill. The career maturity of schizophrenic clients and implications for vocational rehabilitation programs is described in detail in Ciardiello and Bingham (37).

## Self-Esteem

Rosenberg (38) defined self-esteem as the individual's evaluation of the self with regard to some characteristic. Super (25) saw vocational choice as an implementation of self-concepts. He identified self-esteem as an important metadimension of self-concept and a primary motivator of vocational behavior. Griffiths (39) and Watts (40) found low self-esteem to be one of the predictors invariably associated with unemployment and vocational rehabilitation outcome in psychiatrically disabled clients.

In order to improve the reliability of the Rosenberg Self-Esteem Scale (38), Ciardiello, Klein and Sobkowski (22) added items to correct the 'floor effect' and increased coefficient alpha (Kuder Richardson Formula 20) from .15 for the original scale to .89 for the modified scale. Using the modified measure, Ciardiello, et al. (22) found that self-esteem was an important variable in the rehabilitation process, correlating significantly with symptom level, general level of functioning, level of ego functioning and having the indirect effect in employment status.

## Motivation to Work

In order to take into account the environmental factors which affect motivation, it is useful to redefine motivation in terms of Bandura's (41) construct of self-efficacy. Both environmental and personal characteristics contribute to a person's perception of self-efficacy. This redefinition is important in conceptualizing the vocational motivation of the disabled. It explains how failure to perform successfully in the past, and/or obtain the desired outcomes, results in lowered expectations of capacity to function in the future. The schizophrenic patient often has a work history of frustration and failure. This can make him reluctant to face the prospects of employment, and he seems to lack the drive to deal with the placement process or other aspects of vocational rehabilitation.

'Professional patienthood' can also result in motivational problems. Often the schizophrenic patient concludes that the rewards of working are not worth the risk of failure. The patient often sees the likelihood of getting and functioning in a rewarding job as remote. It is easier just to be a patient and collect disability benefits. Many chronically mentally ill persons are reluctant to take part in the vocational rehabilitation process because they are afraid of losing disability benefits (42,43,44).

Motivation to work was found to be one of the most important predictors of the employment status of chronically mentally ill clients by many investigators (35,38,45,46). Ciardiello and Turner (21) developed a reliable and valid measure of manifest motivation to work called the Work Related Activities Scale. Using this measure, Ciardiello (47) and Ciardiello, Klein and Sobkowski (22) found that there was a significant positive relationship between motivation to work and employment status.

## Ego Functions

In general terms, Freud conceptualized ego functioning as reflecting an individual's ability to love and to work. Functions of the ego such as: thought processes, reality testing, mastery/competence, judgement, and autonomous and synthetic functioning can be seen as essential in successful work selection and performance.

Those who are psychoanalytically oriented view schizophrenia as primarily an ego impairment (48,49). It seems likely that the impaired ego of the schizophrenic person would experience a great deal of difficulty coping with vocational demands (5). Using Bellak's (50) Ego Functioning Scale, Ciardiello, Klein and Sobkowski (22), identified two ego functions - autonomous functioning and adaptive regression in the service of the ego (ARISE) which were significantly related to the employment status of schizophrenic subjects. In addition, Ciardiello, et al. (51) factor analyzed the ego function scores and identified a set of ego functions (factor I) which successfully discriminated employed and unemployed schizophrenic clients (Wilks' Lambda .60, $p < .001$).

Bellak (50) outlined strategies for improving each of the twelve ego functions. Bellak and Black (51) have demonstrated that the ego functions of psychotic persons in the community can be substantially improved by making maximal use of ego strengths to remediate ego deficits. Implications for vocational rehabilitation are discussed in Ciardiello, et al. (51). The Vocational Placement Project used Bellak's Ego Functioning Scale as a post-test measure of clinical outcome.

## Disability

While many studies documented the finding that more severe psychopathology (especially schizophrenia) was related to high rates of unemployment (7,9,10,19) Gurel and Lorei found that psychiatric symptom level was not related (45) to employment status. Ciardiello and Turner (21) and Ciardiello, Klein and Sobkowski (23) also found that on the whole, general symptom levels were not related to ability to work for a sample of chronically mentally ill persons (85% had a current diagnosis of schizophrenia). These findings suggest that many severely psychiatrically disabled clients have adjusted to their symptomotology and can work despite psychological distress.

Using the same subjects, Ciardiello (21,22,46) found that there was a significant positive relationship between general level of functioning (activities of daily living/social adjustment) and employment status (19).

Two measures were used in the Vocational Placement Project to assess psychiatric disability: the SCL-90 and the Katz Social Adjustment Scale. The SCL-90 is a 90-item self-report symptom inventory developed by the Johns Hopkins Clinical Psychometrics Research Unit, and designed to primarily reflect the psychological symptom patterns of psychiatric and medical patients. The Katz Social Adjustment Scale (52) was developed in association with the Hopkins Symptom Check List (HSCL) which was a forerunner of the SCL-90. This instrument was designed to assess those aspects of psychiatric/rehabilitation functioning which did not fall within the traditional notion of psychiatric symptoms. The Katz scale is designed to measure those aspects of activities of daily living which are presumed, by Katz and his associates, to be necessary for functioning in a "normal" adult world. The specific aspects of the Katz scales which have been adopted for this project are the measures of daily living (Activities of Daily Living Scale) and leisure functioning (Leisure Time Activities Scale).

## Summary

A review of the literature suggests a need for more effective vocational rehabilitation programs for the chronically mentally ill. The focus of the present study has been the implementation and testing of a pilot program in order to evaluate the effectiveness of strategies to return the chronically mentally ill to the work force. The broad goal of this research is to understand and improve vocational rehabilitation programs for this population. An experimental evaluation design was utilized to evaluate the pilot vocational rehabilitation program which was based on vocational theory and two years of supportive research. Career maturity and clinical outcomes were examined in order to understand the impact and interaction of important variables in the vocational rehabilitation process. In addition, various components of the pilot program were evaluated separately in order to determine their relative contributions to rehabilitation outcome.

## B. PROCEDURES

### Objectives

The purpose of this research was to test a pilot vocational rehabilitation program for the chronically mentally ill. More specifically, the objectives of this study are as follows: (1) To evaluate the effectiveness of the pilot vocational rehabilitation program in increasing number of days spent employed. (2) To determine the relative impact of various program components. (3) To examine the relationships among the following variables: career maturity, as measured by the CMI and career maturity vignette; self-esteem, as measured by the Modified Rosenberg Self-Esteem scale; level of functioning, as measured by the Katz Social Adjustment Scale; motivation as measured by the Work-Related Activities Scale; ego-functioning, as measured by Bellak's Ego Functioning Scale; and symptom distress, as measured by the SCL-90.

The significance of these objectives for vocational rehabilitation is as follows:

1. Evaluating career maturity and clinical outcomes leads to an increased understanding of the impact and interaction of variables in the vocational rehabilitation process. A more comprehensive understanding of the vocational rehabilitation process will contribute to the development and improvement of effective vocational programs.

2. Improved approaches to the vocational rehabilitation of chronically mentally ill persons are essential to the return of such individuals to the work force.

### Subjects

Continuing care clients at the CMHC of RMS considered by staff clinicians to be ready and motivated to work were referred to this experimental program. Clients were carefully evaluated by project staff and 32 individuals were selected based on the following specific criteria for being considered chronically mentally ill:

> ...any adult with a history of long term (at least two years) psychopathology which has resulted in some degree of impairment of social and/or vocational functioning. This included clients with major psychotic disorders such as schizophrenia, manic-depressive disorders and organic brain syndrome with psychosis. It also includes people with severe personality disorders and incapacitating neuroses, but excludes substance abuse and anti-social personality disorders. (This definition is used to identify continuing care clients at the Community Mental Health Center of Rutgers Medical School.)

Selection was also based on work-readiness and need for vocational services, and was limited to those individuals who voluntarily agreed to participate. Seventy-five percent of these clients have a diagnosis of schizophrenia.

## Instrumentation

The Vocational Placement Project included: three scales of the Career Maturity Inventory-Competence Test and Career Maturity Vignette; the Modified Rosenberg Self-Esteem Scale; the SCL-90; the Katz Social Adjustment Scale; The Work-Related Activities Scale; Bellak's Ego Functioning Scale; and a detailed employment history.

## Career Maturity Inventory-Competence Test

The Career Maturity Inventory was devised by Crites (53) to assess the attitudes and competencies involved in making realistic vocational choices. The CMI - Competence Test measures the more cognitive variables involved in choosing an occupation. Three parts of the Competence Test were used: Knowing Yourself (how well an individual can appraise his/her job-related capabilities); Choosing a Job (how adept he/she is at matching personal characteristics with occupational requirements); and Looking Ahead (how foresightful he/she is in planning for a career). (See Appendix II). Each part consists of 20 items, and subjects are asked to choose one of the five given answers for each item. For example:

> Cynthia has tried to become interested in several different things, but she has not stayed with any of them for very long. She will start an activity, such as flower arranging or dancing, but then quit in a short time. It is hard for her to figure out what she likes to do.
>
> What do you think?
>
> F She may just be going through a time of trying different things; an interest will develop in one of them later on.
>
> G It's almost impossible for her to know for sure what her interests are.
>
> H She could be interested in anything she wants; she should go ahead and get into something.
>
> J Her parents know her best; she should ask them what her interests are.
>
> K Don't know

Raw scores were calculated for each of these three subscales of the CMI-Competence Test; scores range from a low of 0 (no correct responses) to a high of 20 (all correct responses).

## Career Maturity Vignette

A career maturity vignette describing a career decision faced by an individual was developed by project staff to assess career maturity (See Appendix II). Subjects were asked to write a paragraph in response to each of several questions following the vignette. An expert judge rated the vignettes by classifying them into categories of pre-program responses and post-program responses. If the program had an impact on career maturity, vignettes could be reliably classified as pre-program and post-program. If there was no impact on career maturity, differences would be imperceptible and classification of results would be random.

## Modified Rosenberg Self-Esteem Scale

The original Rosenberg Self-Esteem Scale, which proved to be unrealiable with a psychiatrically disabled sample in the Vocational Assessment Project, was modified during the Vocational Rehabilitation Project in an attempt to establish a reliable self-esteem measure for this population. (See Appendix III). The Modified Rosenberg Self-Esteem Scale used in the present study is a Likert Scale composed of 11 items used to measure global self-esteem. For each item, subjects were asked to indicate which response best describes them. For example:

1. I feel that I am a person of worth, at least on an equal plane with others.

   1. strongly agree   2. agree   3. disagree   4. strongly disagree

Scores range from 0 (low self-esteem) to 11 (high self-esteem). One point was given for each response which indicated high self-esteem.

## The SCL-90

The SCL-90 is a 90-item self-report symptom inventory developed by the Johns Hopkins Clinical Psychometrics Research Unit, (54) and designed to primarily reflect the psychological symptom patterns of psychiatric and medical patients. (See Appendix III). Each of the 90 problems/complaints are rated on a 5-point scale of distress (0-4), ranging from "not at all" to "extremely". Subjects are instructed to select the numbered descriptor that best describes the amount of discomfort that problem has caused him/her during the past week including today. For example:

| HOW MUCH WERE YOU DISTRESSED BY: | Descriptors |
|---|---|
| | 0 Not at all |
| Nervousness or shaking inside . . . _____ | 1 A little bit |
| | 2 Moderately |
| | 3 Quite a bit |
| | 4 Extremely |

The SCL-90 is scored and interpreted in terms of 9 primary symptom dimensions and 3 global indices of distress. These are labeled:

I. SOMATIZATION
II. OBSESSIVE-COMPULSIVE
III. INTERPERSONAL SENSITIVITY
IV. DEPRESSION
V. ANXIETY
VI. HOSTILITY
VII. PHOBIC ANXIETY
VIII. PARANOID IDEATION
IX. PSYCHOTICISM

GLOBAL SEVERITY INDEX (GSI)
POSITIVE SYMPTOM DISTRESS INDEX (PSDI)
POSITIVE SYMPTOM TOTAL (PST)

Each of the 9 primary symptom dimensions is calculated by averaging the distress scores from each item comprising that dimension. Scores for each dimension range from a low of 0 (no reported symptom distress) to a high of 4 (extremely high level of symptom distress). The Global Severity Index (GSI) is obtained by taking a grand total of the summed distress scores for the 9 dimensions and dividing this score by 90 (items). The Positive Symptom Total (PST) is the total number of positive symptom responses made by the subject (i.e., non-zero responses). Scores range from a low of 0 (no reported symptoms) to 90 (positive response reported for every symptom). The Positive Symptom Distress Index (PSDI) is calculated by dividing the grand total of the summed distress scores for the 9 dimensions by the PST. Scores range from a low of 0 to a high of 4. (See Appendix III).

## The Katz Social Adjustment Scale

The Katz Social Adjustment Scale (52) was developed in association with the Hopkins Symptom Check List (HSCL) which was a forerunner of the SCL-90. This instrument was designed to assess those aspects of psychiatric/ /rehabilitation functioning which did not fall within the traditional notion of psychiatric symptoms. The Katz scale is designed to measure those aspects of activities of daily living which are presumed, by Katz and his associates, to be necessary for functioning in a "normal" adult world. The specific aspects of the Katz scales which have been adopted for this project are the measures of daily living (Activities of Daily Living scale) and leisure functioning (Leisure Time Activities scale).

The Activities of Daily Living scale (ADL) is composed of 16 everyday activities and hobbies. (See Appendix III). Subjects are asked to rate each of these items according to frequency of practice, as in the following example:

| Activity | 1<br>am not doing | 2<br>am doing some | 3<br>am doing regularly | 0<br>does not apply |
|---|---|---|---|---|
| Help with household chores . . . . . . . | ___ | ___ | ___ | ___ |

Scores range from 0 (total non-participation in everyday activities) to 48 (regular participation in each of the 16 activities). Scoring involves multiplying the total number of responses in each response column by the number representing each response; column totals and are then added for a grand total for the ADL scale.

The Leisure Time Activities scale (LTA) is composed of 22 items. (See Appendix III). Subjects are instructed to indicate the frequency of engagement in each activity according to the following rating scale:

| Activity | 1<br>Practically never | 2<br>Sometimes | 3<br>Frequently | 0<br>Does not apply | Would like to do more of this |
|---|---|---|---|---|---|
| Work in garden or yard. . . . | ___ | ___ | ___ | ___ | ___ |

Scores range from 0 (total non-participation in leisure time activities) to 66 (frequent participation in each of the 22 activities). The score for the LTA scale is computed by multiplying the total number of responses in each response column by the number representing that response; column totals are then added for a grand total for the LTA scale. The last column (would like to do more of this) was not scored.

## Work-Related Activities Scale

The Work-Related Activities Scale is a behavioral measure developed by Ciardiello and Turner (21) to assess clients' manifest motivation to work. The scale lists 16 work-related activities, and the subject is asked to report which of these s/he has done in the past six months, as well as frequency of the behavior. (See Appendix III).

Scores range from 0 to 16 (high motivation). One point was given for each work-related activity which was reported.

## Bellak's Ego Functioning Scale

Bellak's Ego Functioning Scale is a structured interview developed by Bellak (50) for the clinical assessment of ego functions. (See Appendix IV). The interview consists of twelve sets of specific questions which assess level of functioning along the following dimensions: reality testing; judgment; sense of reality of the world and of the self; regulation and control of drives, affects, and impulses; object relations; thought processes; adaptive regression in the service of the ego; defensive functioning; stimulus barrier; autonomous functioning; synthetic-integrative functioning; and mastery-competence.

Each of the 12 ego function scales was given two global ratings on a 13-point scale (1 through 7 with "half" points). The global ratings include: the current status of the function being rated and characteristic level of adaptation-maladaptation. The global ratings were influenced by the separate ratings of each component factor for each ego function. The average length of time for scoring was estimated to be one to two hours per subject.

## Employment History

An employment history form was used to obtain a complete record of each subject's life-long work history. (See Appendix V). The subject was asked to record the dates worked, type of work, length of time worked, and whether the job was full- or part-time, for every job he/she has worked. In addition, subjects were asked to complete a monthly work history over the past six months. (See Appendix V).

## Intervention

The pilot vocational rehabilitation program, the Employment and Growth Opportunities (EGO) program, provided services to program members on a full-time, daily basis for a seven-month period. Each program participant was assigned to one of two vocational counselors who had the main responsibility for the person in the program, including coordinating and communicating with other service providers outside of the program. The two counselors are doctoral students in Counseling Psychology at Rutgers Graduate School of Education. Their graduate training has had an emphasis in vocational psychology and they have worked on the Vocational Research Project for the past three years. The caseload for each vocational counselor consisted of 8 clients. A description of the major program components is described below:

1. Assessment - A comprehensive assessment of each program participant was conducted in order to develop individual vocational rehabilitation plans. This assessment included measures found to be reliable and valid for a chronically mentally ill population in the two years of supportive research (SREG808; SREG116) and interviewing strategies previously developed to deal with the specific problems of schizophrenic clients in the vocational rehabilitation process.

2. Individual Vocational Counseling and Training. Each program participant had a minimum of one individual session with their vocational counselor each week. During these sessions, specific goals were set for the week and activities and other interventions for the week were scheduled (based on the rehabilitation plan).

Individual sessions were used to facilitate realistic vocational choices, improve work-related behaviors, increase motivation to work and deal with the psychological difficulties associated with work.

3. Social Support Groups. The vocational counselors and group members served as important sources of social support in the job search and adjusting to the work world. A social support group met one evening per week and focused on improving social skills and dealing with difficult interpersonal situations with supervisors and coworkers.

4. Skill Training Groups. Weekly skill-training groups focused on teaching planning, decision-making, values clarification, job search skills, career information and appropriate work related behaviors. Structured experiences, simulations, video-taping and role-playing were used. The following outline illustrates some of the topics which were covered in the group sessions:

*Orientation: Description of program services, group training classes, introduction of program members and staff

*Filmstrip - "Introduction to the World of Work"
Discussion

*Values Clarification Exercises - Personal Values
Discussion

*Filmstrip - "Clarifying Your Values - Career Values"
Discussion

*Career Values Exercise - Exploration of Work Values
Discussion

*Synthesizing Values/Abilities/Interests - Developing Job Options

*Filmstrip - "Options"

*Career/Occupational Information
Discussion of resources for occupational exploration

*Career/Occupational Information
Discussion of occupational exploration strategies

*Open Discussion, Progress in Program - obstacles; concerns

*Audio tapes - "Employee Dilemmas"
Work Situations. Anticipating possible difficulties and exploring alternative solutions

*Job Interviewing - Instructional materials
Discussion

*Development of Job Interviewing Skills -
Using role-playing, video-taping, two-way mirrors, etc.

*Decision-Making Skills
Exercise/Discussion

*Decision-Making Skills. Unrealistic goals.
Exercise/Discussion

*Decision-Making/Planning Skills - Judgment; Anticipation of consequences

*Decision-Making/Planning Skills - Personal Obstacles in the Job Search

*Application of Decision-Making Strategies/Planning Skills to the Job Search Process and/or Work Situation
Case Studies/Discussion

*Interpersonal Skills: How to deal with the difficult boss/coworkers?

*Coping with work deadlines

*Coping with stress on the job

5. Job Development and Placement. The vocational counselors formed cooperative relationships with local employers in order to assist in job placement. Collaborative agreements were also established with the Department of Vocational Rehabilitation and the New Jersey Employment Service. Eligible clients were encouraged to learn how to make use of these agencies.

In addition to the above program components, activities were structured for clients based on individual needs. For instance, a counselor may suggest a visit to the N.J. Occupational Resource Center for occupational information or encourage attendance at a local community job fair to a client in the exploration stage of his/her vocational development. Both counselor and client would decide on the number and type of structured activities for the week during the individual counseling session. Program counselors also consulted with other rehabilitation staff on a regular basis in order to coordinate rehabilitation goals. Finally, clients were encouraged to meet informally with their counselors as needed. An integral part of this program was its focus on the importance of the staff-client relationship. It has been suggested in prior research that the quality of this relationship has very important implications for a client's motivation to work and rehabilitation in general (55).

## Method

Continuing care clients at the CMHC of RMS considered by staff clinicians to be ready and willing to work were referred to this experimental program. Clients were carefully evaluated by program staff (two vocational counselors) and 32 individuals were selected based on specific criteria for being considered chronically mentally ill, work-ready and in need of vocational services. A chronically mentally ill person was defined as "Any adult with a history of long term (at least two years) psychopathology which has resulted in some degree of impairment of social and/or vocational functioning. This includes clients with major psychotic disorders: schizophrenia, manic-depressive disorders and organic brain syndrome with psychosis. It also includes people with severe personality disorders and incapacitating neuroses, but excludes clients with a primary diagnosis of substance abuse and anti-social personality disorders". The 32 subjects completed a vocational assessment administered individually by the counselors. This pre-assessment consisted of the Competence Test of the Career Maturity Inventory and Career Maturity Vignette; the Modified Rosenberg Self-Esteem Scale; the Katz Social Adjustment Scale; the Work Related Activities Scale; the SCL-90; and an employment history. Subjects provided demographic data to the counselors, as well. The average length of a single pre-assessment interview was estimated to be one to two hours.

Following this battery of pretests, 16 subjects were randomly assigned to the control group (existing rehabilitation services only) and 16 subjects to the experimental group (which received the pilot vocational rehabilitation program, in addition to existing services). Program services were offered for seven months. Immediately following the end of the program, subjects were contacted for the post-assessment (program evaluation). Four clients in the control group were lost to contact or refused to participate in the post-assessment. The battery of post-tests consisted of the Competence Test of the Career Maturity Inventory and Career Maturity Vignette; the Modified Rosenberg Self-Esteem Scale; the Katz Social Adjustment Scale; the Work Related Activities Scale; the SCL-90; and Bellak's Ego Functioning Scale. The average length of a single post-assessment interview was estimated to be four hours over several days. Post-assessments were administered individually and completed within 6 weeks of the end of the program.

## Analysis

An internal consistency measure, Kuder-Richardson Formula 20 (coefficient alpha) was computed to estimate the reliability of the assessment instruments. Analysis of covariance was used to examine group differences for those variables important in the rehabilitation process (i.e. career maturity, as measured by Parts I, III, IV of the CMI-Competence Test; self-esteem as measured by the Modified Rosenberg Self-Esteem Scale; level of functioning as measured by the

Katz Social Adjustment Scale; symptom distress as measured by the SCL-90; and motivation as measured by the Work-Related Activities Scale). T-tests were used to examine group differences for subject scores on the ego functioning scales, and correlations were computed among test scores, amounts of group and individual counseling contacts, and amount of time subjects worked during the time the experimental program functioned. A chi-square analysis was used to examine whether or not the classification of subjects' career maturity vignettes changed as a result of program intervention.

## C. RESULTS

In order to evaluate the pilot program, an analysis of covariance was used to determine whether there were significant differences between the experimental group and the control group for the following dependent variables: self-esteem, motivation, symptom level, level of functioning, career maturity and length of time worked during the program. For each of the measures the pretest measures were used as the covariate. For total time worked during the program, the amount of time subjects had been employed prior to the onset of the program was used as the covariate. T-tests were used to examine group differences for subject scores on the ego functioning scales. A correlational analysis was used to examine the relationships between the individual and group counseling program components and post-test measures between the counseling components and the total amount of time subjects worked during the program. A chi-square analysis was used to examine whether or not the classification of subjects' career maturity vignettes changed as a result of program intervention. The resutls of these analyses are reported in the following sections.

### Demographic Data

Relevant demographic data was obtained from a pre-assessment interview and client records. The frequency distributions for selected demographic and biographical variables are presented in Table 1. Fifty-six percent of the sample were males, and 44% were females. The mean age was 33 years. Approximately 44% of the sample were high school graduates and 12.5% were college graduates. Thirty-seven and one half percent were Catholic, 12.5% were Protestant, 12.5% were Jewish, 15.6% were Atheists, and 21.9% were either unknown or of another faith. Eighty-seven and one half percent were white, 9.4% were black and 3.1% were Asian. Forty-seven percent were employed and 53% were unemployed.

Table 1. Frequency Distributions for Selected
Demograhic and Biographical Variables
in the Sample (N=32)

| VARIABLE | FREQUENCY | RELATIVE FREQUENCY PERCENT |
|---|---|---|
| Sex | | |
| Male | 18 | 56.0% |
| Female | 14 | 44.0% |
| Education | | |
| Less than 12 years | 3 | 9.4% |
| High school graduate | 14 | 43.8% |
| Some college (less than 2 years) | 6 | 18.8% |
| Completed 2 years of college | 2 | 6.3% |
| Completed 3 years of college | 1 | 3.1% |
| Completed 4 years of college | 4 | 12.5% |
| More than 4 years | 2 | 6.3% |
| Religion | | |
| Catholic | 12 | 37.5% |
| Protestant | 4 | 12.5% |
| Jewish | 4 | 12.5% |
| Atheist | 5 | 15.6% |
| Other | 4 | 12.5% |
| Unknown | 3 | 9.4% |
| Race | | |
| White | 28 | 87.5% |
| Black | 3 | 9.4% |
| Asian | 1 | 3.1% |
| Employment Status | | |
| Employed | 15 | 47.0% |
| Unemployed | 17 | 53.0% |

The frequency distribution of diagnostic categories is presented in Table 2. These were determined by reviewing client records. Seventy-five percent of the subjects were diagnosed as schizophrenic. The most common schizophrenic subtypes represented in the sample were paranoid (34.4%) and chronic undifferentiated (25%).

Table 2. Frequency Distribution for Diagnostic Categories in the Sample (N=32)

| DIAGNOSIS | FREQUENCY | RELATIVE FREQUENCY |
|---|---|---|
| Paranoid Schizophrenia | 11 | 34.4% |
| Chronic Undifferentiated Schizophrenia | 8 | 25.0% |
| Simple Schizophrenia | 1 | 3.1% |
| Schizophrenic Personality Disorder | 1 | 3.1% |
| Acute Schizophrenic Episode | 3 | 9.4% |
| Psychotic Depression | 2 | 6.3% |
| Personality Disorder - Paranoid | 1 | 3.1% |
| Non-psychotic Organic Brain Syndrome | 1 | 3.1% |
| Manic Depressive Psychosis | 2 | 6.3% |
| Manic-Depressive Hypomania | 1 | 3.1% |
| Psychophysiological Disorder | 1 | 3.1% |
| TOTAL | | 100.0% |

## Reliability

Kuder Richardson reliability coefficients for all pre-test and post-test measures are presented in Table 3.

1. The Kuder Richardson reliability coefficient for the Modified Rosenberg Self-Esteem Scale was .87 for the pre-test and .99 for the post-test.

2. The Kuder Richardson reliability coefficient for the Work-Related Activities Scale was .66 for the pre-test and .58 for the post-test.

Table 3. Kuder Richardson Reliability Coefficients for Pre-test and Post-test Measures

| SCALE | PRE-TEST | POST-TEST | N CASES | N ITEMS |
|---|---|---|---|---|
| Modified Rosenberg Self-Esteem Scale | .87 | .99 | 28 | 11 |
| Work-Related Activities Scale | .66 | .58 | 28 | 18 |
| SCL-90 | .98 | .98 | 28 | 90 |
| Katz Social Adjustment Scale | | | | |
| Activities of Daily Living Subscale | .78 | .99 | 28 | 16 |
| Leisure Time Activities Subscale | .78 | .99 | 28 | 22 |
| TOTAL | .8[illegible] | .80 | 28 | 38 |
| Career Maturity Inventory | | | | |
| Part I - Self Appraisal | .52 | .99 | 27 | 20 |
| Part III - Choosing a Job | .70 | .99 | 27 | 20 |
| Part IV - Planning | .45 | .99 | 27 | 20 |

3. The Kuder Richardson reliability coefficient for the SCL-90 was .98, but, due to multicolinearity among the elements of the correlation matrix formed by the elements of both the pre-test and the post-test, it was impossible to confirm the accuracy of these measures. Using a psychiatric population, Derogatis (54) obtained internal reliability estimates ranging from .77 to .90 and test-retest reliability measures which generally fell between .80 and .90.

4. The Kuder Richardson reliability coefficients for the Katz Activities of Daily Living and Leisure Time activities subscales were respectively .78 for the pre-test measure and .99 for the post-test measure.

5. The Kuder Richardson reliability coefficient for the Katz Social Adjustment Scale Total Score was .80 for the pre-test and .80 for the post-test.

6. Kuder Richardson reliability coefficients for the Career Maturity Inventory Parts, I, III and IV were .52, .70 and .45 respectively, for the pre-tests, and .99 for all three post-test scales.

Reliability coefficients for the Modified Rosenberg Self-Esteem Scale and the Katz Social Adjustment Scale Total Score indicate a high level of reliability for general purposes. The levels of reliability for the Work-Related Activities Scale, the SCL-90, the Katz Activities of Daily Living and Leisure Time Activities Subscales, and the Career Maturity Inventory Parts I, III and IV are acceptable for research purposes. The mean interrater reliability coefficient reported by Bellak, Hurvich and Gediman (50) for Bellak's ego functioning scales (for a schizophrenic sample) was .60 when the extent of agreement and disagreement was translated into percentages; the results reflected a substantial degree of agreement among raters. Therefore, the ego functioning scales were judged by Bellak, _et al_. to be reliable.

## Analysis of Covariance

Adjusted group means for the following outcome measures are presented in Table 4: Modified Rosenberg Self-Esteem Scale, Work-Related Activities Scale, SCL-90 and Katz Social Adjustment Scale.

1. The adjusted mean for the Modified Rosenberg Self-Esteem Scale was 8.09 for the experimental group and 9.29 for the control group. There were no significant differences between the two groups ($F(1,25)=1.08, p<.31$).

2. Adjusted group means for the Work-Related Activities Scale were 127.75 for the experimental group and 78.67 for the control group. These differences were found to be marginally significant ($F(1,25)=2.72, p<0.11$); the results are presented in Table 5.

Table 4. Analyses of Covariance of Outcome Measures (N=28)

| SCALE | df | F | p | Adjusted Group Means | |
|---|---|---|---|---|---|
| Modified Rosenberg Self-Esteem Scale | 1,25 | 1.08 | 0.31 | Experimental Group: | 8.09 |
| | | | | Control Group: | 9.29 |
| Work-Related Activities Scale | 1,25 | 2.72 | 0.11 | Experimental Group: | 127.75 |
| | | | | Control Group: | 78.67 |
| SCL-90 | | | | | |
| Global Severity Index | 1,25 | 1.80 | 0.31 | Experimental Group: | .63 |
| | | | | Control Group: | .81 |
| Positive Symptom Total | 1,25 | 1.28 | 0.27 | Experimental Group: | 30.09 |
| | | | | Control Group: | 37.87 |
| Positive Symptom Distress Index | 1,25 | 1.28 | 0.27 | Experimental Group: | 1.52 |
| | | | | Control Group: | 1.82 |
| Katz Social Adjustment Scale | | | | | |
| Activities of Daily Living | 1,25 | 5.22 | 0.03 | Experimental Group: | 28.4 |
| | | | | Control Group: | 32.6 |
| Leisure Time Activities | 1,25 | 0.82 | 0.38 | Experimental Group: | 37.1 |
| | | | | Control Group: | 35.03 |
| Katz Total Score | 1,25 | 0.64 | 0.43 | Experimental Group: | 65.57 |
| | | | | Control Group: | 67.58 |

Table 5. Analysis of Covariance of the Post-test Work Related Activities Scale (N=28)

| SOURCE | df | SS | MS | F | p |
|---|---|---|---|---|---|
| Group | 1 | 16173.26 | 16173.26 | 2.72 | 0.11 |
| Pre-test | 1 | 30820.41 | 30820.41 | 5.19 | 0.03 |
| Error | 25 | 148543.26 | 5941.73 | | |
| TOTAL | 27 | 195536.93 | | | |

3. The adjusted mean for the Global Severity Index Scale of the SCL-90 was .63 for the experimental group and .81 for the control group. There were no significant differences between the two groups ($F(1,25)=1.80, p<.31$). Adjusted group means for the SCL-90 Positive Symptom Total were 30.09 for the experimental group and 37.87 for the control group. No significant differences were found between the two groups ($F(1,25)=1.28, p<0.27$). Adjusted group means for the Positive Symptom Distress Index were 1.52 for the experimental group and 1.82 for the control group; there were no significant differences between these group means ($F(1,25)=1.28, p<.2681$).

4. Adjusted group means for the Katz Activities of Daily Living were 28.4 for the experimental groups and 32.6 for the control group. There was a significant difference between the two groups ($F(1,25)=5.22, p<.03$). These results are presented in Table 6. Adjusted means for the Katz Leisure Time Activities Subscale were 37.10 for the experimental group and 35.03 for the control group. No significant differences were found between the two groups ($F(1,25)=0.82, p<.38$). The adjusted group means for the Katz Total Scores were 65.57 for the experimental group and 67.58 for the control group. There were no significant differences between the two groups ($F(1,25)=.64, p<.43$).

Table 6. Analysis of Covariance of the ADL Subscale Post-test Scores (N=28)

| SOURCE | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Group | 1 | 120.60 | 120.60 | 5.22 | 0.031 |
| Pretest | 1 | 249.71 | 249.71 | 10.80 | 0.003 |
| Error | 25 | 578.04 | 23.12 | | |
| TOTAL | 27 | 948.35 | | | |

Adjusted group means for the Career Maturity Inventory, Parts I, III and IV are presented in Table 7.

1. Adjusted group means for Part I of the CMI (Self-Appraisal) were 13.88 for the experimental group and 12.64 for the control group. The experimental group mean was higher than the control group mean; however, there were no significant differences between the two groups ($F(1,24)=55, p<.48$).

2. Adjusted group means for Part III of the CMI (Choosing A Job) were 13.5 for the experimental group and 11.64 for the control group. The mean for the experimental group was higher than the control group mean, however, there were no significant differences between the two groups ($F(1,24)=.54, p<.47$).

Table 7. Analyses of Covariance of the Career Maturity Inventory (CMI) (N=27)

| SCALE | df | F | p | GROUP MEANS | |
|---|---|---|---|---|---|
| Part I, Self-Appraisal | 1,24 | 0.55 | 0.48 | Experimental Group:<br>Control Group: | 13.88<br>12.64 |
| Part III, Choosing a Job | 1,24 | 0.54 | 0.47 | Experimental Group:<br>Control Group | 13.50<br>11.64 |
| Part IV, Planning | 1,24 | 0.99 | 0.33 | Experimental Group:<br>Control Group: | 13.25<br>13.82 |

3. Adjusted group means for Part IV of the CMI (Planning) were 13.25 for the experimental group and 13.82 for the control group. There were no significant differences between the two groups ($\underline{F}(1,24)=.99, \underline{p}<.33$).

   Table 8 presents the adjusted group means for total length of time worked during the pilot program. The mean for the experimental group was 103.75, and the mean for the control group was 100.67. There were no significant differences between the two groups ($\underline{F}(1,25)=.00, \underline{p}<.96$).

Table 8. Analysis of Covariance of Total Length of Time Worked During the Pilot Program (N=28)

| ADJUSTED GROUP MEANS | | df | F | p |
|---|---|---|---|---|
| Experimental Group Mean: | 103.75 | 1,25 | 0.64 | 0.4296 |
| Control Group Mean: | 75.50 | | | |

## T-Tests

The results of the computation of the t-tests between group means for the characteristic ego functioning scales are presented in Table 9.

1. Group means for all of the ego functioning scales were higher for the experimental group than for the control group.

2. Significant differences between the experimental group and the control group were found for the following scales: Reality Testing ($t(26)=1.69, \underline{p}<.10$); Judgment ($t(26)=1.96, \underline{p}<0.06$); Regulation and Control of Drives ($t(26)=2.04, \underline{p}<.05$); and ARISE ($t(26)=1.93, \underline{p}<.06$).

Table 9. T-tests of the Ego Functioning Scales - Characteristic Ratings (N=28)

| SCALE | GROUP | MEAN | t | p |
|---|---|---|---|---|
| Reality Testing | Experimental<br>Control | 4.19<br>3.71 | 1.69* | 0.10 |
| Judgment | Experimental<br>Control | 4.19<br>3.5 | 1.96* | 0.06 |
| Sense of Reality | Experimental<br>Control | 4.19<br>3.96 | 0.77 | 0.45 |
| Regulation and Control of Drives | Experimental<br>Control | 4.19<br>3.58 | 0.77 | 0.45 |
| Object Relations | Experimental<br>Control | 3.44<br>3.13 | 1.23 | 0.23 |
| Thought Processes | Experimental<br>Control | 4.81<br>4.21 | 2.04* | 0.05 |
| ARISE | Experimental<br>Control | 4.00<br>3.50 | 1.93* | 0.06 |
| Defensive Functioning | Experimental<br>Control | 3.63<br>3.21 | 1.19 | 0.25 |
| Stimulus Barrier | Experimental<br>Control | 4.25<br>4.08 | 0.79 | 0.45 |
| Autonomous Functioning | Experimental<br>Control | 4.22<br>3.96 | 0.78 | 0.44 |
| Synthetic-Integrative Functioning | Experimental<br>Control | 4.13<br>4.04 | 0.24 | 0.81 |
| Mastery-Competence | Experimental<br>Control | 4.06<br>3.92 | 0.44 | 0.66 |
| Superego Scale | Experimental<br>Control | 3.69<br>3.46 | 0.76 | 0.45 |
| Libidinal Drive Strength | Experimental<br>Control | 2.75<br>1.92 | 0.78 | 0.44 |
| Aggressive Drive Strength | Experimental<br>Control | 2.75<br>2.00 | 0.71 | 0.48 |

*Values are significant at the .10 level.

## Correlations Between Counseling and Other Variables in the Experimental Group

A factor of this experiment which could not be adequately controlled was the degree to which subjects in the experimental group availed themselves of the counseling services offered. Therefore, all subjects in the experimental group did not receive the same treatment. Therefore, it was useful to examine the impact of the two main sources of interventions offered by the program--the individual counseling contact and the group counseling contact. Those correlations between the individual counseling variable and other variables in the study which proved to be even marginally significant are presented in Table 10.

1. There is a high negative correlation between the time subjects worked prior to the program ($r$ (15) = -0.80, $p<.0002$) and a high positive correlation between amount of time worked during the program and the amount of time they spent in individual counseling ($r$ (15) = 0.58, $p<.0178$).

2. There were sizeable correlations between Part I ($r$ (15) = 0.56, $p<.0228$), Part III ($r$ (15) = 0.41, $p<.1177$), and Part IV ($r$ (15) = 0.69, $p<.0029$) of the pre-test CMI and individual counseling.

3. Significant correlations were found between the post-tests of Part I and Part IV of the CMI ($r$ (15) = 0.44, $p<.0855$ and $r$ (15) = 0.61, $p<.0116$) and individual counseling.

4. There is both a significant correlation between the pre-test version of the Work Related Activities Scale ($r$ (15) = 0.44, $p<.0575$) and the post-test version ($r$ (15) = 0.69, $p<.0032$).

5. There were significant correlations between amount of time spent in individual counseling and two of the ego-functioning scales (Thought Processes: $r$ (15) = 0.66, $p<.0058$; ARISE: $r$ (15) = 0.44, $p<.0.0852$).

Amount of time spent in individual counseling and time spent in group counseling were highly correlated ($r$ (15) = 84, $p<.0001$) which indicated that clients who saw counselors individually also attended group sessions. Therefore, the effects for group counseling which are presented in Table 11 are very similar to the results obtained for individual counseling.

1. There is a negative correlation between time spent in group counseling and time worked prior to the program ($r$ (15) = -0.61, $p<.0114$) and a positive correlation between group counseling time and time worked during the program ($r$ (15) = 0.44, $p<.0846$).

Table 10. Significant Correlations Between Individual Counseling Time and Other Variables for Subjects in the Experimental Group (N=16)

| Variable | Pearson r | N | p |
|---|---|---|---|
| Time worked prior to program | -0.80 | 16 | 0.0002 |
| Time worked during program | 0.58 | 16 | 0.0178 |
| Time spent in group counseling | 0.84 | 16 | 0.0001 |
| CMI, Part I (pre-test) | 0.56 | 16 | 0.0228 |
| CMI, Part III (pre-test) | 0.41 | 16 | 0.1177 |
| CMI, Part IV (pre-test) | 0.69 | 16 | 0.0029 |
| CMI, Part I (post-test) | 0.44 | 16 | 0.0855 |
| CMI, Part IV (post-test) | 0.61 | 16 | 0.0116 |
| Work-Related Activities Scale (pre-test) | 0.48 | 16 | 0.0575 |
| Work Related Activities Scale (post-test) | 0.69 | 16 | 0.0032 |
| Ego-Functioning Scales: | | | |
| Thought Processes | 0.66 | 16 | 0.0058 |
| ARISE | 0.44 | 16 | 0.0852 |

Table 11. Significant Correlations Between Time Spent in Group Counseling by Subjects and Other Variables in the Experimental Group (N=16)

| Variable | Pearson r | N | p |
|---|---|---|---|
| Time worked prior to program | -0.61 | 16 | 0.0114 |
| Time worked during program | 0.44 | 16 | 0.0846 |
| Time spent in individual counseling | 0.84 | 16 | 0.0001 |
| CMI, Part I (pre-test) | 0.42 | 16 | 0.1085 |
| CMI, Part III (pre-test) | 0.42 | 16 | 0.1066 |
| CMI, Part IV (pre-test) | 0.58 | 16 | 0.0175 |
| CMI, Part III (post-test) | 0.50 | 16 | 0.0491 |
| CMI, Part IV (post-test) | 0.73 | 16 | 0.0014 |
| Ego Functioning Scales: | | | |
| Reality Testing | 0.50 | 16 | 0.0491 |
| Judgment | 0.54 | 16 | 0.0311 |
| Thought Processes | 0.68 | 16 | 0.0035 |
| ARISE | 0.64 | 16 | 0.0082 |
| Libidinal Drive Strength | -0.46 | 16 | 0.0762 |

2. There are correlations between group counseling time and the pre-test scores on the three parts of the CMI (Part I: $r$ (15) = 0.42, $p<.1085$; Part III: $r$ (15) = 0.43, $p<.1066$; Part IV: $r$ (15) = 0.58, $p<.0175$).

3. There are also correlations between the CMI post-test scores and group counseling time (Part III: $r$ (16) = 0.50, $p<.0491$; Part IV: $r$ (15) = 0.73, $p<.0014$).

4. Scores on five of the ego functioning scales were significantly correlated with the degree to which clients in the experimental group involved themselves in group counseling activities: Reality Testing: $r$ (15) = 0.50, $p<.0491$; Judgement: $r$ (15) = 0.54, $p<.0311$; Thought Processes: $r$ (15) = 0.68, $p<.0035$; ARISE: $r$ (15) = .064, $p<.0082$; and Libindinal Drive Strength: $r$ (15) = −0.46, $p<.0762$.

### Career Maturity Vignette Ratings

The degree to which the ratings of the career maturity vignettes completed by subjects in the experiment group matched the point in time at which subjects completed them are presented in Table 12. While the difference in distribution between the two time periods is marginally significant ($\chi^2$ (1) = 3.33, $p<.0679$), the changes in distribution are in the opposite direction of that which was expected. Pre-program vignettes were more likely to be classified as post-program vignettes, and post-program vignettes were more likely to be classified as pre-program vignettes. For the control group (see Table 13), there were no differences in distribution for the classification of vignettes from the two periods of time ($\chi^2$ (1) = 0.667, $p<.4142$). When the distribution of ratings for the two groups are compared for the pre-program period (see Table 14), there are no differences in the distributions of the ratings ($\chi^2$ (1) = 0.199, $p<.6559$); the same was true for the distributions of ratings for the two groups for vignettes completed during the post-program period ($\chi^2$ (1) = 0.199, $p<.6559$).

Table 12. Ratings of Career Maturity Vignettes of Subjects in the Experimental Group During Pre-Program and Post-Program Periods (N=15)

| Time at which vignette was completed | Ratings by Career Maturity Expert<br>Pre-Program | Post-Program | Total |
|---|---|---|---|
| Pre-Program | 5<br>(33.33%)* | 10<br>(66.67%) | 15<br>(100%) |
| Post-Program | 10<br>(66.67%) | 5<br>(33.33%)* | 15<br>(100%) |

*Percent of vignettes correctly classified

Table 13. Ratings of Career Maturity Vignettes of Control Group Subjects During Pre-Program and Post-Program Periods (N=12)

| Time at which vignette was completed | Ratings by Career Maturity Expert<br>Pre-Program | Post-Program | Total |
|---|---|---|---|
| Pre-Program | 5<br>(41.66%)* | 7<br>(58.34%) | 12<br>(100%) |
| Post-Program | 7<br>(58.33%) | 5<br>(41.67%)* | 12<br>(100%) |

*Percent of vignettes correctly classified.

Table 14. Ratings of Subjects' Career Maturity Vignettes During the Pre-Program Period (N=27)

| Group | Rating<br>Pre-Program | <br>Post-Program | <br>Total |
|---|---|---|---|
| Experimental | 5<br>(33.33%)* | 10<br>(66.67%) | 15<br>(100%) |
| Control | 5<br>(41.67%)* | 7<br>(58.33%) | 12<br>(100%) |

*Percent of vignettes correctly classified

Table 15. Ratings of Subjects' Career Maturity Vignettes During the Post-Program Period (N=27)

| Group | Rating<br>Pre-Program | <br>Post-Program | <br>Total |
|---|---|---|---|
| Experimental | 10<br>(66.67%) | 5<br>(33.33%)* | 15<br>(100%) |
| Control | 7<br>(58.33%) | 5<br>(41.67%)* | 12<br>(100%) |

*Percent of vignettes correctly classified

## DISCUSSION

### 1. INTRODUCTION

The purpose of this study was to evaluate the effectiveness of a pilot vocational rehabilitation program for the chronically mentally ill. Program effectiveness was evaluated along the following dimensions: (1) vocational rehabilitation outcome/employment status, (2) clinical outcome, (3) career maturity outcome, (4) program participation and (5) implications for work. A detailed discussion of each of these outcome variables is presented below as well as suggestions for future research and recommendations for program development.

### 2. VOCATIONAL REHABILITATION OUTCOME/EMPLOYMENT STATUS

There was a significant correlation between the number of individual counseling sessions attended by program participants and employment status (defined as paid employment); the more individual counseling sessions attended by a program member, the more likely he was to be employed. In addition, results indicate a significant correlation between both the pre-test and post-test versions of the Work Related Activities Scale and the amount of time spent in individual counseling. Given the marginally significant finding reported for the analysis of covariance for the post-test Work Related Activities Scale and the sizeable increase in the correlation from the pre-test version to the post-test version, the significant correlations cited above suggest that the individual counseling component of the program had an impact on subjects' level of motivation to work. There were also sizeable correlations between the three CMI pre-test scores and individual counseling; this suggests that those subjects in the experimental group with higher levels of career maturity as measured by the CMI were more likely to attend individual counseling sessions. The significant correlations between the post-tests of Part I and Part IV of the CMI are probably due to the general relationships between career maturity and the tendency to attend individual counseling. It was also found that the amount of time spent in individual counseling and the amount of time spent in group counseling were highly correlated, indicating that clients who saw counselors individually also attended group sessions. In conclusion, the results discussed above suggest that the individualized attention characteristic of the client-counselor relationship was an effective component of this pilot program and a key variable in the vocational success of the chronically mentally ill.

Although not statistically significant, results also indicated that the total amount of time worked by the experimental group exceeded that for the control group. Perhaps significance may have been reached had the amount of program participation been equal for all members of the experimental group. Since attendance in program activities varied with the individual, results were attenuated. Thus, actual attendance in program activities appears to be a much more important variable to address than does simply being a member of the experimental group. This suggests that program participants were more likely to be working as a result of actual participation in program activities. It appears, therefore, that the probability of the vocational success of chronically mentally ill clients can be increased as a result of their participation in vocational rehabilitation programs. It should also be noted that significance may have been reached and the effects of the program may have been more substantial had the program duration been longer and included more subjects.

## 3. CLINICAL OUTCOME

### The Katz Social Adjustment Scale

The Katz Social Adjustment Scale consists of two subscales (Activities of Daily Living and Leisure Time Activities) which measure level of functioning. Results of the present study indicated that control group subjects scored significantly higher than experimental group subjects on the Katz Activities of Daily Living Scale ($p<.03$). Perhaps a higher frequency of reported daily activities for control group subjects reflected additional time they had to engage in various activities in which experimental subjects were unable to participate due to their involvement in work/program activities. As indicated in the previous section, the total amount of time worked by the experimental group exceeded that of the control group. Also, experimental group subjects scored significantly higher than control group subjects on the post-test WRAS, indicating that these individuals spent more time in work-related activities. Additional analyses indicated that those subjects who were working ($\overline{X}=29.9$) reported participation in fewer activities of daily living than those who were not working ($\overline{X}=34.5$). These results suggested that experimental group subjects were not functioning at a lower level than control group subjects but rather that individuals in the experimental program were more established in relation to the prerequisites of work readiness (as measured the ADL scale) and were functioning at a higher level which is more directly involved with actual work or work-related activities.

### The Work Related Activities Scale (WRAS)

The Work Related Activities Scale was utilized in this study as a measure of subjects' motivation to work. As indicated above, experimental group subjects scored significantly higher than control group subjects on the post-test WRAS; this suggests that the treatment which experimental subjects received in program activities increased their motivation to work. In addition, there were significant correlations between the amount of individual counseling received by subjects in the experimental group and their scores both on the pre-test and post-test WRAS. These results further suggest that subjects with higher levels of motivation to work were more likely to see their counselors and, in addition, that those individual counseling contacts increased clients' levels of motivation to work as measured by the WRAS. As indicated in the previous section, reliability of the WRAS was relatively low. This lessened the possibility that results of analysis of covariance would have indicated significant differences between the means of experimental and control groups. Given the sizeable correlation between the WRAS and the number of individual counseling contacts, it's very likely that had the measure been more reliable, the analysis of covariance would have indicated greater differences between groups. This implies that perhaps the relationship between motivation to work and program participation may have been even stronger than it appears due to the attenuation resulting from the low reliability of the WRAS. These results are suggestive, nonetheless, that not only is motivation to work an important factor in terms of who seeks counseling, but also in terms of who, in turn, is more likely to increase their motivation as a result of obtaining counseling and participating in a vocational rehabilitation program of this nature.

## Bellak's Ego Functioning Scale

T-tests indicated that five ego functions were found to be significantly higher in experimental group subjects: reality testing ($\underline{p}<.10$); judgment ($\underline{p}<.06$); regulation and control of drives, affects, and impulses ($\underline{p}<.04$); thought processes ($\underline{p}<.05$); and adaptive regression in the service of the ego ($\underline{p}<.06$). It should be noted that these results were likely to have been influenced by experimenter bias since the limitations of this research did not permit the utilization of blind raters. Thus, the same individuals who implemented the program also rated the ego functions of all subjects, and may have favored those individuals in the experimental group.

### Reality Testing.

Reality testing ratings of those individuals who participated in the experimental program ($\overline{X}=4.19$) were found to be significantly higher ($\underline{p}<.10$) than those of control group subjects ($\overline{X}=3.71$). This suggests that experimental group subjects increased their awareness and understanding of themselves and their environment as a result of program involvement. The components of the program considered to be most effective in improving reality testing were activities/exercises in self-appraisal, values clarification, and career exploration. It can be concluded that participation in the pilot rehabilitation program can improve the reality testing of chronically mentally ill clients.

Judgment. Results of the present study indicated that ratings on the judgment scale were significantly higher ($p<.06$) for experimental group subjects ($\bar{X}=4.19$) than for control group subjects ($\bar{X}=3.50$). This implies that the judgment of experimental group subjects was improved as a result of their program participation. Numerous planning, problem-solving, and decision-making exercises were implemented through the skill development component of the program's weekly group meetings. In addition, through individual counseling, participants were assisted in the development of planning and problem-solving strategies which more specifically addressed their individual concerns/deficits. These were the program interventions considered to be most effective in improving the judgment of experimental group subjects. It appears that the judgment of psychiatrically disabled clients can be improved as a result of participation in this type of vocational rehabilitation program.

Regulation and Control of Drive, Affect, and Impulse. Experimental group subjects' ratings ($X=4.22$) for the regulation and control of drives scale were found to be significantly higher ($p<.04$) than those ratings for control group subjects ($\bar{X}=3.58$). This suggests that individuals in the experimental program were better able to tolerate anxiety, depression, disappointment, and delayed satisfaction as a result of program participation. Program components which were felt to be most responsible to improved drive regulation included individual counseling and support group attendance where feelings of anxiety, disappointment, and frustration were frequently addressed. It can be concluded that improved regulation and control of drives of chronically mentally ill clients can be attributed to participation in the pilot vocational rehabilitation program.

Thought Processes. Results of the present study indicated that ratings of the thought processes of experimental program participants ($\bar{X}=4.81$) were significantly higher ($p<.05$) than ratings of those individuals in the control group ($\bar{X}=4.21$). This finding implies that program participation was influential in improving the ability of experimental group subjects to organize thoughts and perceptions. The program interventions considered to be most effective in producing this change were structured activities in decision making and problem solving which were implemented during the weekly skill development groups. Thus, it appears that participation in a vocational rehabilitation program can lead to improvement in the thought processes of psychiatrically disabled clients.

*Adaptive Regression in the Service of the Ego (ARISE)*. Experimental group subjects ($\bar{X}=4.00$) were rated significantly higher ($p<.06$) than control group subjects ($\bar{X}=3.50$) on the ARISE scale, suggesting that program participation resulted in an increased ability of experimental group subjects to engage in art, humor, and creative activities in order to promote adaptation; this further implies that those individuals in the experimental program were less likely to be deterred by distressing, disabling fantasies. Program activities considered to be most responsible for this improvement were individual counseling and support group discussions which allowed participants to express regressive ideas and feelings and develop adaptive strategies to effectively employ such regressions. It follows that the ability of chronically mentally ill clients to engage in regressive activities in order to promote adaptation can be improved as a result of participation in a vocational rehabilitation program.

While statistical analyses did not yield significant results between experimental and control group subjects for the remaining seven ego function scales, it should be noted that mean ratings for all seven ego function scales were higher for the experimental group. This lack of significance may be due to the limitations of this experimental research (i.e., small sample size and short length of program duration). Although higher ratings for experimental group subjects may suggest that program participation was responsible for the improved ego functioning of these individuals, it may also be interpreted as the result of an experimental bias. That is, since the same individuals who implemented the program also rated the ego functions of all subjects, perhaps their ratings were biased in favor of the experimental group. Finally, since there was no pre-test measure of ego functioning, it may have been the case that experimental group subjects had higher ego functioning before they were exposed to the program.

In summary, experimental group subjects were rated significantly higher than control group subjects on five ego functions: reality testing, judgment, regulation and control of drives, thought processes, and adaptive regression in the service of the ego. However, significance was not reached for the remaining seven scales. One possible explanation for the significance of four of these five ego functions is addressed by Ciardiello, Klein, and Sobkowski (51). A factor analysis on the ego function assessment of 30 schizophrenic clients indicated that ego functions could be grouped into three factor structures. Factor I included ego functions related to vocational functioning, factor II consisted of defensive ego functions which inhibit the formation of psychiatric symptoms, and factor III was made up of ego functions which appear to have important roles in social adjustment. With the exception of the regulation and control of drives scale, the remaining four ego functions which reached significance fell under factor I. Since factor I consisted of ego functions related to vocational development, it would logically follow that these specific areas would be more likely to be improved through a vocational rehabilitation program. The fact that most other ego functions fell into the remaining two factors would explain why these may not have reached significance.

## SCL-90

The SCL-90 is a measure of psychiatric symptom level. Results indicated that no statistically significant differences ($p<.31$) existed between the reported symptoms of experimental ($\bar{X}=30.09$) and control ($\bar{X}=37.89$) groups. Nevertheless, subjects in the experimental program reported fewer psychiatric symptoms than those individuals in the control group, suggesting that program involvement may have been responsible for a decrease in psychiatric distress. Perhaps a larger sample size and a longer program duration would have yielded significant results.

It should be noted, however, that analysis of covariance indicated that when statistically controlling for time worked prior to the experimental program, a marginally significant difference ($p<.07$) existed between experimental ($\bar{X}=1.44$) and control ($\bar{X}=1.93$) group subjects on the Positive Symptom Distress Index (PSDI) of the SCL-90; there was also a marginally significant difference ($p<.11$) in the Positive Symptom Total (PST) scores of experimental ($\bar{X}=28.53$) and control ($\bar{X}=39.96$) groups. These findings illustrate fewer psychiatric symptoms for experimental group subjects. Additional analyses indicated that control group subjects had longer work histories than experimental group subjects ($t(15)= -1.53$, $p<.17$). There was also a significant negative correlation ($r(15)= -.51$, $p<.05$) between prior time worked and PST. These results suggest that (when prior time worked is statistically controlled) experimental group subjects were likely to have experienced a decrease in psychiatric symptoms as a result of program involvement. Nonetheless, the hypothesis that the stress associated with working and/or involvement in a work program increases psychiatric symptomotology was not found to be the case.

## The Modified Rosenberg Self-Esteem Scale

Analysis of covariance indicated that there were no significant differences in self-esteem between experimental and control groups, as measured by the Modified Rosenberg Self-Esteem Scale. It should be noted that self-esteem scores were high for both experimental and control group subjects with pre-program means of 29.56 and 34.00, respectively, and post-program means of 31.86 and 33.59, respectively, on a scale for which 44 is the maximum attainable score. It may be the case that individuals with higher self-esteem were more likely to have been referred to participate in vocational rehabilitation research addressing competitive employment; on the other hand, individuals may have had higher self-esteem as a result of actually being referred. Another explanation for such high self-esteem scores may be associated with a possible relationship between self-esteem and interest in working which was not examined in the present study; individuals referred to participate in vocational rehabilitation research may have been chosen on the basis of having expressed an interest in returning to work. Since self-esteem scores were so high from the onset, it was difficult to achieve significant differences between the experimental and control groups as a result of program intervention. Perhaps a larger sample size, a longer program duration, and a more sensitive self-esteem measure would have yielded significant results.

## 4. CAREER MATURITY OUTCOME

Two measures were used to assess career maturity. One was the three parts of the Career Maturity Inventory (CMI): Part I, Knowing Yourself; Part III, Choosing a Job; and Part IV, Looking Ahead. As indicated above, analysis of covariance did not indicate that there were significant differences between experimental and control group post-test scores. However, there were significant correlations between levels of participation in group counseling and individual counseling and subjects' scores on the three pre-tests of the CMI. Given the combination of these results--the lack of significant results for the analysis of covariance and the correlations between program treatments and CMI pre-test scores--it appears that the level of subjects' career maturity may have had an impact on their willingness to be involved with the counseling activities offered to clients. The CMI might be a useful tool to determine which clients will be most receptive to vocational counseling. A second and perhaps more likely explanation for these results may be related to the unequal participation of experimental group subjects in program activities. The failure of several experimental group subjects to maintain regular attendance in both individual and group counseling prevented their exposure to all possible activities designed to improve career maturity. Thus, program impact was perhaps mediated by irregular participation, resulting in fewer obtainable differences between CMI scores of the experimental and control groups.

The second measure used to assess career maturity was the career maturity vignette designed by project staff. The results of the statistical analysis of the career maturity vignette data are somewhat confusing. Only one marginally significant effect was observed. The assessments of the pre-test and the post-test vignettes completed by subjects in the experimental group were clearly different. Those completed during the preprogram phase were more likely to be classified as having been completed during the postprogram phase, and those completed during the postprogram phase were more likely to be classified as completed during the preprogram phase. The most obvious explanation for this is that the procedure used to assess the vignettes was not useful. The expert on career maturity who assessed the vignettes indicated that there were difficulties in distinguishing preprogram vignettes from postprogram vignettes. Another possibility is that the impact of the program on clients largely consisted of an increase in their interest in job acquisition but no increase in other areas of career development. The increase in interest in job acquisition may have overshadowed other themes related to career maturity in the vignettes. This latter explanation would be consistent with the lack of differences between the experimental group and the control group indicated by the analysis of covariance results for the post-test CMI measures. In summary, insignificant differences between experimental and control groups on the measures of career maturity suggest that program impact may have been mediated due to varying degrees of program participation by experimental subjects. In addition, career maturity as measured by the CMI may be a useful indicator of clients' readiness for vocational counseling.

## 5. PROGRAM PARTICIPATION

There were two types of program interventions which were offered only to subjects in the experimental group. One was the individual counseling, and the other was the group counseling. As indicated in Table 10, there were several significant correlations between the amount of time spent by experimental group subjects in individual counseling and several of the measures used in the assessment part of the program; there were also several significant correlations between the amount of time spent by experimental group subjects in group counseling and other measures.

The importance of these results can be partitioned into four categories: the amount of time worked before and during the program, the CMI pre-test scores, the Work-Related Activities pre-test and post-test measures, and the ego-functioning scales. In general, the results of these correlations suggest that (1) the more time clients spent working prior to their involvement with the program, the less likely they were to be involved with the counseling activities of the program, but the more time they spent in counseling, the more time they spent working during the program; (2) there is an association between levels of career maturity and clients' willingness to attend counseling sessions--both group and individual; (3) there is a willingness to attend counseling sessions but that, also, counseling appears to increase clients' motivation to work; and (4) certain aspects of ego-functioning are affected by counseling while others are unaffected.

The first two parts of these results are somewhat confusing. It does not appear necessarily logical that clients who have longer work histories would necessarily be less likely to attend counseling. However, it may be the case that those clients who worked longer feel they do not need assistance to get themselves back into the working world and that therefore, they are less likely to seek help and may even feel resentful that they would need assistance. Larsen (56) suggested that the goals of psychiatrically disabled clients in vocational rehabilitation programs can be classified into three major groupings: (1) those most concerned with the intermediate steps in achieving a career goal, (2) those concerned with the actual acquisition of a job choice, and (3) those concerned with meeting clients' self-defined goals. It may be that clients whose work histories were longer fell into the second group while clients with less prior employment time fell into the first. It seems logical that clients whose primary goals are those involving the crystallization of a career choice would be more receptive to counseling interventions. Therefore, those clients with longer work histories may have perceived themselves as having definite goals and the skills to reach their work goals. Those clients who had more limited work histories may have perceived themselves as requiring assistance to define and attain occupational goals. Therefore, for these reasons, clients with more limited work histories may have been more likely to seek more counseling assistance.

The significant correlations between counseling time and employment time in the program, on the other hand, clearly suggest that the counseling offered by the program had an impact on clients' willingness and ability to obtain employment. In addition, there were marginally significant differences between the mean scores of the two groups on the post-test Work Related Activities Scale. These findings suggest that counseling activities in a vocational rehabilitation program can have an impact both on clients' motivation to work and the degree to which they actually obtain work. However, weaknesses in the design of the study prevented a clear statement of the relationship between counseling time and either motivation to work or amount of time worked. It is possible that, if a control treatment similar to the counseling administered to the experimental group had been administered to the control group, similar relationships among these variables might have been observed among control group subjects. That is, the correlations observed among variables for subjects in the experimental group may simply be due to the fact that those subjects were included in structured activites. There were no structured activities for control group subjects so it is not possible to be certain these results were not simply the result of offering any type of activity to subjects. Therefore, definitive statements regarding the relationship between counseling and work variables cannot be made, but the analyses cited above are suggestive that counseling activities in a vocational rehabilitation program can have an impact on both the motivation and ability of clients to obtain employment.

## 6. IMPLICATIONS FOR WORK

It has been the case that the rehabilitation of clients with histories of chronic hospitalizations has been a difficult problem. As indicated above, those studies concerned with the rehabilitaiton of schizophrenic clients which utilized employment as an outcome variable revealed that efforts to rehabilitate schizophrenic clients to the point at which they could be employed were unsuccessful. The results of the present study indicated that certain efforts have an impact on clients' levels of motivation to work and on the degree to which they enter paid employment. It seems that subjects' motivation to work not only determined the degree to which they sought vocational counseling but that the counseling also increased clients' motivation. There was also a relationship between the amount of time clients spent in individual counseling and the amount of time they spent working. Counselors in vocational rehabilitation program have repeatedly maintained that the relationship they are able to establish with clients is one of the key elements in clients' willingness to change their behavior. The relationship between individual counseling contacts and the amount of time subjects in the experimental group spent working lends support to their contention. In addition, it appears that certain aspects of clients' ego strength were improved as a result of their participation in program activities. It seems logical that better ego-functioning would strengthen clients' abilities to both obtain and retain employment.

Given the short duration of the program and the bleak, general employment picture which existed at the time of the study, the results of the study suggest that there are useful techniques available to assist psychiatrically disabled clients to enter the workforce. The results of this study suggest that counseling is a crucial element in such an effort-both group counseling and individual counseling. Given the obstacles cited above, these results indicate that the experimental program had a fairly potent effect on subjects' level of motivation to work and on the amount of time they spent working.

## 7. LIMITATIONS OF STUDY AND SUGGESTIONS FOR FUTURE RESEARCH

While statistical analyses did not yield significant results between experimental and control groups for numerous variables, it should be noted that most of the results indicated differences in favor of the experimental group. This lack of significance is not surprising based on the limitations of this experimental research. The small sample size (N=32) and the short length of time during which the program was in operation (7 months) were restricting variables contributing to insignificant differences between groups. In addition, since program participation was unequal for all members of the experimental group due to irregular attendance, significant differences between experimental and control groups were attenuated. It is expected that with a larger group of subjects, a longer program duration, and an evenly treated experimental group, the magnitude of the effect of the program would have been greater. It is recommended that future research in program evaluation of this nature broaden its scope to accommodate a larger sample size, longer implementation period, and equal treatment of all experimental subjects.

In addition, due to a limited staff, the counselors who implemented this program were the same individuals who interviewed and rated subjects on the twelve ego function scales. The subjective bias imposed by this procedure was perhaps responsible for contaminated results favoring the experimental group. The potential for such an experimenter bias would be eliminated through the use of blind raters. It is recommended that future research employ unbiased, objective interviewers/raters to prevent such contamination.

As a result of time restriction and a limited staff, it was beyond the scope of this project to provide control group subjects with any form of treatment. While experimental group subjects received program services, control group subjects were not given any specialized attention. These circumstances may have contributed to a Hawthorne Effect; that is, experimental group subjects may have behaved differently as a result of knowing they were being studied for research purposes. This makes it difficult to determine whether results were due to actual treatment conditions or confounded by a Hawthorne Effect. Different treatments administered to both experimental and control groups would permit a more accurate comparison of the two groups and a clearer interpretation of results. It is suggested that future research include some form of non-related treatment for control group subjects to provide the equal attention necessary to eliminate circumstances for a Hawthorne Effect.

Finally, since such a short-term pilot program produced limited results, a more extensive process study is suggested for further examination of program effectiveness. The implementation and evaluation of more developed program phases would permit further identification of effective program elements to improve the vocational rehabilitation of the chronically mentally ill.

## 8. RECOMMENDATIONS FOR PROGRAM DEVELOPMENT

Based on the results of this research, an eight-phase program has been designed by Ciardiello (57). The phases include: (1) Recruitment/Screening; (2) Assessment; (3) Planning; (4) Work Values/Motivation; (5) Career Maturity/Self-Esteem; (6) Job Search; (7) Work Adjustment; (8) Post-assessment/Follow-up. A brief description of each phase is provided below, and illustrated in Figure 2. (See Appendix I).

Phase I. Recruitment/Screening

It is recommended that participants be recruited and screened based on the criteria established as a result of the assessment and evaluation findings of these past three years of vocational research.

Phase II. Assessment

After recruitment and screening, it is suggested that a comprehensive assessment of each program participant be conducted and used to construct individual vocational rehabilitation plans.

Phase III. Planning

Assessment results are recommended for use by the vocational counselor in collaboration with each client to make an individual vocational rehabilitation plan. Specific behavioral objectives are formulated based on assessed deficits and program strategies are constructed to make maximum use of individual strengths. For instance, clients' scores on ego functioning subscales are useful in determining which ego deficits are interfering with vocational success, which ego strengths can be used in overcoming work difficulties and which jobs make most of their demands on ego strengths, rather than weaknesses (important occupational choice factor). At the conclusion of this phase, it is expected that each client have a vocational rehabiliation plan which lists vocational problems, vocational rehabilitation objectives and specific strategies to achieve those objectives.

Phase IV. Work Values

Very often psychiatrically disabled persons lack motivation to work because employment offers little financial reward. Such individuals choose to collect disability benefits as a means of income, rather than risk failure in a job. The main purpose of the values phase is to help program members to understand what other values are associated with work, in addition to extrinsic monetary rewards. The general goal of this phase is to improve vocational motivation through structured activities which assist program members to identify and clarify their individual personal and work values.

Phase V. Career Maturity/Self-Esteem

Psychiatrically disturbed individuals often lack in the skills necessary for them to make a realistic, career mature vocational choice as a result of interfering cognitive thought disorders, poor reality testing, and limited educational/vocational opportunities. The main purpose of this phase is to facilitate the understanding and development of career maturity as a prerequisite to realistic vocational choice. Emphasis is on the following components of career maturity: (1) self-appraisal; (2) self-esteem; (3) career exploration; (4) problem solving; (5) planning; and (6) goal selection. The general goal of this phase is to assist program members in the development of a realistic vocational choice by improving career maturity and self-esteem.

### Phase VI. Job Search

The main purpose of the job search phase of the program is to consolidate the skills and information about self clients have acquired during earlier phases of the program and to develop and implement a plan by which they can obtain employment. The general goal of this phase is to provide clients with job search skills which are necessary for seeking and obtaining competitive jobs.

### Phase VII. Work Adjustment Support

The main purpose of this phase of the program is to help members deal with the problems that arise during the course of a job. Chronically mentally ill persons often have difficulty in any new or changing environment. In addition, they often lack the social skills which are important to vocational success. The activities of this phase address these goals as well as the general goal of work adjustment.

### Phase VIII. Post Assessment/Follow-up

During the final phase of the cycle, it is recommended that the assessment conducted during Phase II be repeated. This assessment and current employment status is then used to plan maintenance activities. The work support group and individual sessions are the principal maintenance activities. However, other activities might include repeating phases or parts of phases from the subsequent cycle. In collaboration with the clients, plans are made to continue individual vocational development. Ideally follow-up and maintenance activities would be available on an "as needed" basis throughout the work life of the individual.

A grant proposal incorporating each of these phases has been submitted to the National Institute of Mental Health; if funded, each of these phases will be elaborated.

In addition, there is an audio-visual slide presentation accompanying this written report that presents suggestions for program development based on our last three years of research.

## E. DISSEMINATION AND IMPLEMENTATION

The project director, consultants and staff have been very involved in the local and national dissemination of the results of this vocational research through conferences and journal articles. This is a partial list of conferences.

-National Convention of the American Psychological Association, Los Angeles, California, August, 1981.

-National Convention of the American Personnel and Guidance Association, St. Louis, Missouri, April, 1981.

-International Association of Psycho-Social Rehabilitation Services, New York, New York, May, 1980.

-New Jersey American Personal and Guidance Association, Cherry Hill, New Jersey, April, 1981.

-New Jersey Psychiatric Rehabilitation Association, New Brunswick, New Jersey, June, 1980.

-New Jersey Department of Education, Division of Vocational Education and Career Planning, Occupational Resource Center, Edison, New Jersey, March 25 - 26, 1981.

-National Convention of the American Psychological Association, Washington, D.C., March, 1983.

Articles:

-Ciardiello, J.A. Job placement success of schizophrenic clients in sheltered workshop programs. Vocational Evaluation and Work Adjustment Bulletin, 1981, 14(2), 125 - 128.

-Ciardiello, J.A. and Bingham, W.C. The career maturity of schizophrenic clients. Submitted to Rehabilitation Counseling Bulletin, September, 1982.

Book Chapter:

-Ciardiello, J.A., Klein, M. and Sobkowski, S. The Vocational Rehabilitation and Education of the Chronically Mentally Ill. In Bellak, L. and Goldsmith, L. The Broad Scope of Ego Function Assessment, John Wiley & Sons, in press, 1982.

In order to further disseminate project findings, copies of the final report will be sent to those individuals and groups who have cooperated in this project and other interested agencies. Articles using the results and implications of the study will continue to be written and submitted for publication to appropriate journals. Plans will be developed to sponsor training programs and workshops, and attend professional conferences to present the results of this project to others who are interested in the vocational rehabilitation/education of the chronically mentally ill.

The project director and consultants are directly involved in counselor education as faculty members in Counselor Education Programs at Rutgers and The Pennsylvania State University. Students in Rutgers classes have already been involved as fieldwork interns interviewing clients and graduate classes developed one of the measurement instruments. This project will continue to be part of counselor education programs.

Since it was not possible to analyze all the data collected, analyses will continue over the next few years. This information will continue to be disseminated through articles, professional conferences and in-service training programs.

## REFERENCES

1. Commission on Accreditation of Rehabilitation Facilities. CARF Report. Chicago, Illinois, 1973.

2. Evje, M., Bellander, I., Gibby, M. & Palmer, I.S. Evaluating protected hospital employment of chronic psychiatric patients. Hospital and Community Psychiatry, 1972, 23, 24-28.

3. Veterans Administration. To work again, to live again: The vocational rehabilitation of homebound veterans. Washington, D.C.: Veterans Administration, Department of Veterans Benefits, VA pamphlet 21-65-1.

4. Mosher, E., Gunderson, J. & Buchsbaum, S. Special report: Schizophrenia, 1972. Schizophrenia Bulletin, Number 7:10, 52, 1973.

5. Gunderson, J. & Mosher, E. The cost of schizophrenia. American Journal of Psychiatry, 1975, 132, 901-905.

6. Pear, R. Fairness of Reagan's cutoffs of disability aid questioned. New York Times, May 9, 1982.

7. Heaton, R.K., Chelune, G.J. & Lehman, R.A. Using neuropsychological and personality tests to assess the likelihood of patient employment. Journal of Nervous and Mental Disease, 1978, 166(6), 408-416.

8. Lorei, T.W. & Gurel, L. Demographic characteristics as predictors of posthospital employment and readmission. Journal of Consulting and Clinical Psychology, 1973, 40(3), 426-430.

9. Schaffer, K.F. Evaluating job satisfaction and success for emotionally maladjusted men. Journal of Vocational Behavior, 1976, 9(3), 329-335.

10. Tsuang, M.T. & Winokur, G. The iowa 500: Field work in a 35-year follow-up of depression, mania, and schizophrenia. Canadian Psychiatric Association Journal, 1975, 20(5), 359-365.

11. Farina, A., Felner, R.D. & Boudreau, L.A. Reactions of workers to male and female mental patient job applicants. Journal of Consulting and Clinical Psychology, 1973, 41(3), 363-372.

12. Farina, A., Murray, P.J. & Groh, T. Sex and worker acceptance of a former mental patient. Journal of Consulting and Clinical Psychology, 1978, 46(5), 887-891.

13. Brand, R.C. & Claiborn, W.L. Two studies of comparative stigma: Employer attitudes and practices toward rehabilitated convicts, mental and tuberculosis patients. Community Mental Health Journal, 1976, 12(2), 168-175.

14. Cirese, E. & Buonis, E. An inquiry into working opportunities for people discharged from mental hospitals. Lavoro Neuropsichiatrico, 1974, 55(3), 117-146.

15. Morgan, R. & Cheadle, A.J. Unemployment impedes resettlement. *Social Psychiatry*, 1975, *10*(2), 63-67.

16. Gurel, L. & Lorei, T.W. The labor market and schizophrenics' posthospital employment. *Journal of Counseling Psychology*, 1973, *20*(5), 450-453.

17. Griffiths, R.D. Rehabilitation of chronic psychotic patients: An assessment of their psychological handicap, an evaluation of the effectiveness of rehabilitation, and observations of the factors which predict outcome. *Psychological Medicine*, 1974, *4*(3), 316-325.

18. Hoppe, E.W. Treatment dropouts in hindsight: A follow-up study. *Community Mental Health Journal*, 1977, *13*(4), 307-313.

19. Kuldau, J.M. & Dirks, S.J. Controlled evaluation of a hospital-oriented community transitional system. *Archives of General Psychiatry*, 1977, *34*(11), 1331-1340.

20. Berkowitz, M., Englander, V., Rubin, J. & Worrall, I.D. *An evaluation of policy-related rehabilitation research*, New York: Praeger Publishers, 1977.

21. Ciardiello, J.A. & Turner, F.D. *Final report of the vocational assessment project* (SREG808). Trenton, New Jersey: Department of Education, Division of Vocational Education and Career Preparation, 1980.

22. Ciardiello, J.A., Klein, M.E. & Sobkowski, S. *Final report of the vocational rehabilitation project - Part I* (SREG116). Trenton, New Jersey: Department of Education, Division of Vocational Education and Career Preparation, 1981.

23. Ciardiello, J.A. *Request for funding of the vocational placement project* (SREG207). Trenton, New Jersey: Department of Education, Division of Vocational Education and Career Preparation, 1981.

24. Super, D.E. Vocational adjustment: Implementing a self concept. *Occupations*, 1951, *30*, 1-5.

25. Super, D.E. Toward making self-concept theory operational. In D.E. Super (Ed.), *Career development: Self-concept theory*. New York: College Entrance Examination Board, 1963a.

26. Super, D.E. *The psychology of careers*. New York: Harper & Row, 1957.

27. Super, D.E. Self concepts in vocational development. In D.E. Super (Ed.), *Career development: Self-concept theory*. New York: College Entrance Examination Board, 1963b.

28. Super, D.E. & Bohn, M. *Occupational psychology*. Belmont, California: Wadsworth, 1970.

29. Jordaan, J.P. Exploratory behavior: The formation of self and occupational concepts. In D.E. Super (Ed.), *Career development: Self-concept theory*. New York: College Entrance Examination Board, 1963.

30. Jordaan, J.P. Life stages as organizing modes of career development. In E.R. Herr (Ed.), Vocational guidance and human development. Boston: Houghton Mifflin, 1974.

31. Crites, J.O. & Semler, I.J. Adjustment, educational achievement, and vocational maturity as dimensions of development in adolescence. Journal of Counseling Psychology, 1967, 14, 489-496.

32. Crites, J.O. Vocational psychology. New York: McGraw-Hill, 1969.

33. Crites, J.O. Career development processes: A model of vocational maturity. In E.R. Herr (Ed.), Vocational guidance and human development. Boston: Houghton Mifflin, 1974.

34. Crites, J.O. Career Maturity Inventory: Administration and Use Manual (2nd ed.). Monterey, California: CTB/McGraw Hill, 1978.

35. Searls, D.J., Lowell, T.W. & Miskinins, R.W. Development of a measure of unemployability among restored psychiatric patients. Journal of Counseling Psychology, 1970, 223-225.

36. Patterson, C.H. Interests and the emotionally disturbed client. Educational and Psychological Measurement, 1957, 17, 264-280.

37. Ciardiello, J.A. & Bingham, W.C. The career maturity of schizophrenic clients. Rehabilitation Counseling Bulletin, in press, 1982.

38. Rosenberg, M. Society and the adolescent self-image. Princeton: Princeton University Press, 1965.

39. Griffiths, R.D. The prediction of psychiatric patients' work adjustment in the community. Social Clinical Psychology, Great Britain, 1977, 165-173.

40. Watts, F.N. & Po-Kwan, Y. The structure of attitudes in psychiatric rehabilitation. Journal of Occupational Psychology, 1976, 49, 39-44.

41. Bandura, A. Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 1977, 84, 191-215.

42. Gunn, R.L. Special problems in work adjustment of the mentally ill. In R.E. Hardy & J.G. Cull, Modification of behavior of the mentally ill: Applied principles. Springfield, Illinois: C.C. Thomas, 1975.

43. Rivinus, T.M. The abuse of social security income. Psychiatric Annals, 1977, 7(2), 85-89.

44. Lindsey, D. & Ozawa, M.N. Schizophrenia and SSI: Implications and problems. Social Work, 1979, 24(2), 120-126.

45. Gurel, L. & Lorei, T.W. Hospital and community ratings of psychopathology as predictors of employment and readmission. Journal of Consulting and Clinical Psychology, 1972, 39(2), 286-291.

46. Lehmann, E., Klieser, E., & Kinzler, E. Influence of remuneration on the work-output and social behaviour of chronic psychiatric patients: An experimental study. Social Psychiatry, 1979, 14(4), 167-173.

47. Ciardiello, J.A. A path model to predict the employment status of psychiatrically disabled clients. Unpublished doctoral dissertation, Rutgers University, 1981.

48. Bellak, L. & Leob, I. The schizophrenic syndrome. New York: Grune and Stratton, 1969.

49. Federn, P. Ego psychology and the psychoses. New York: Basic Books, Inc., 1952.

50. Bellak, L., Hurvich, M. & Gediman, H.K. Ego functions in schizophrenics, neurotics, and normals. New York: John Wiley & Sons, 1973.

51. Ciardiello, J.A., Klein, M.E. & Sobkowski, S. Ego functioning and the vocational rehabilitation of schizophrenic clients. In L. Bellak and L. Goldsmith (Eds.), The broad scope of ego function assessment, in press, 1982.

52. Katz, M.M. & Lyerly, S.B. Methods for measuring adjustment and social behavior in the community: I. Rationale, description, discriminative validity and scale development. Psychological Reports, 1963, 13(2), 503-535.

53. Crites, J.O. Career Maturity Inventory: Administration and Use Manual. Monterey, California: CTB/McGraw Hill, 1973.

54. Derogatis, L.R. SCL-90, R (Revised) Version Manual - I. Baltimore, Maryland: Johns Hopkins University School of Medicine, 1977.

55. Ciardiello, J.A. & Larsen, M.V. Final report of the vocational rehabilitation project - Part II (SREG116). Trenton, New Jersey: Department of Education, Division of Vocational Education and Career Preparation, 1981.

56. Larsen, M.V. The career development of psychiatrically disabled clients in vocational rehabilitation programs. Paper presented at the annual convention of the American Psychological Association, Washington, D.C., August 1982.

57. Ciardiello, J.A. A vocational rehabilitation program for the chronically mentally ill: a multi-phase approach. Unpublished paper, June, 1982.

# APPENDIX I

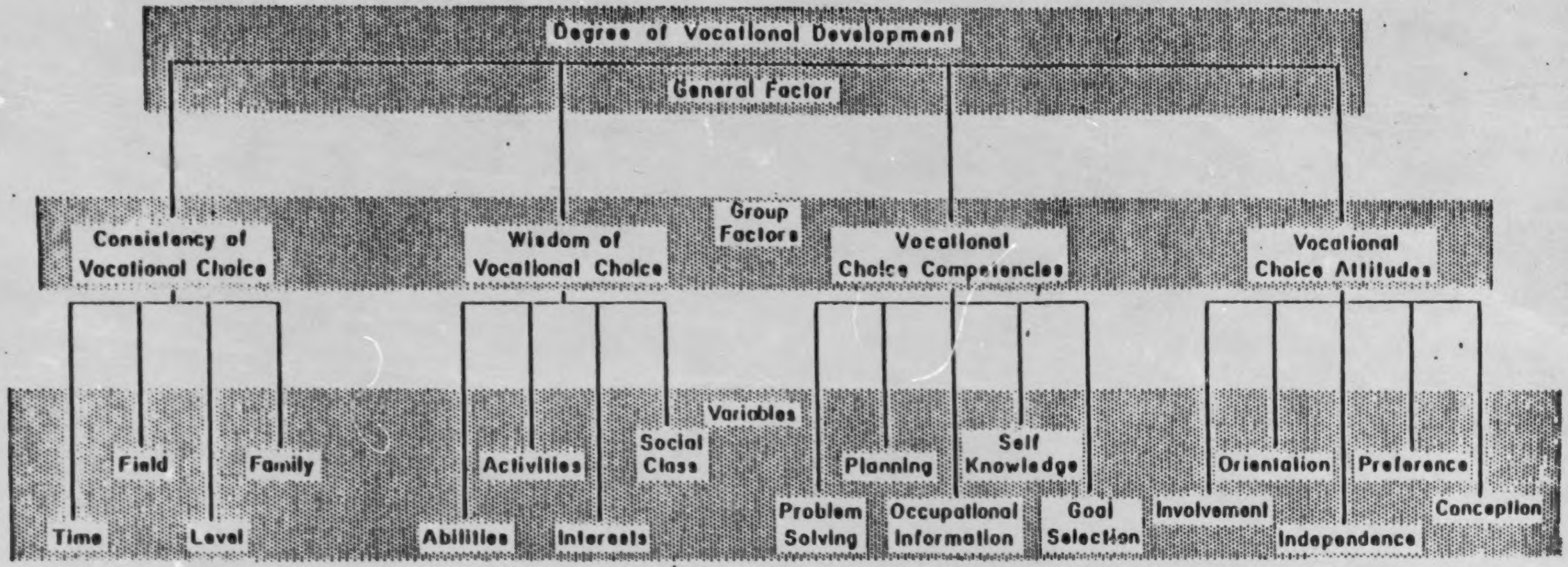
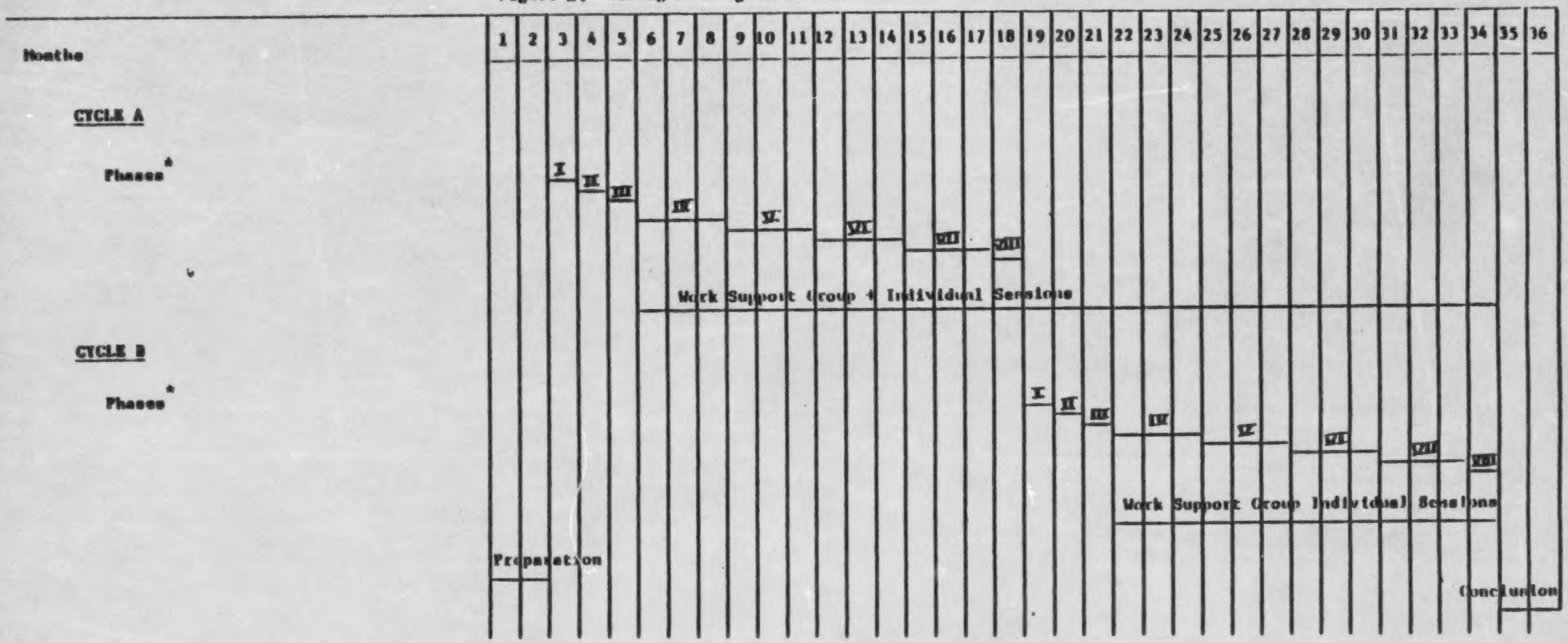

Degree of Vocational Development
General Factor
Group Factors
Consistency of Vocational Choice
Wisdom of Vocational Choice
Vocational Choice Competencies
Vocational Choice Attitudes
Variables
Time
Field
Level
Family
Abilities
Activities
Interests
Social Class
Problem Solving
Planning
Occupational Information
Self Knowledge
Goal Selection
Involvement
Orientation
Independence
Preference
Conception

Fig. 1. The construct of vocational maturity.

Figure 2. Timing of Program Phases



* I = Recruitment/Screening
II = Assessment
III = Planning
IV = Work Values
V = Career Maturity/Self-Esteem
VI = Job Search Skills
VII = Work Adjustment Skills
VIII = Post-Assessment/Follow-up

# APPENDIX II

John is 23 years old. Since his graduation from high school five years ago, he has been employed full-time as a carpenter's helper in his father's small business. Although the customers praise his work, he does not enjoy cabinet-making or building shelves. He feels uncomfortable working in other people's homes.

John does enjoy working with his hands. He spends most of his spare time at his workbench building and repairing electronic equipment for his friends. He often daydreams about earning a living as an electronics technician. John has thought about enrolling in a local technical school, but does not know what kind of programs are available. He is also afraid that he will greatly disappoint his father if he enrolls in school. His father intends to give him the family business some day.

If you were John, what kinds of things would you be thinking about?

What do you think John knows about himself that would help him in making an occupational choice?

What else do you think John needs to know?

What else would you like to know if you were going to help him?

What do you think is the best occupational choice for John?

What are your reasons for thinking this is an appropriate choice?

What steps might John take to carry out his decision?

# APPENDIX III

Name ______________________________ Date ________________

Circle the response which best describes you.

1. I don't feel very likeable.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

2. When I compare myself to others, I feel inferior.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

3. All in all, I am inclined to feel that I am a failure.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

4. I am unworthy of other people's attention.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

5. I could never be as competent as most people.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

6. I feel I do not have much to be proud of.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

7. I wish I could have more respect for myself.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

8. I feel extremely inadequate in most situations.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

9. I certainly feel useless at times.

   1. strongly agree 2. agree 3. disagree 4. strongly disagree

10. At times I think I am no good at all.

    1. strongly agree 2. agree 3. disagree 4. strongly disagree

11. I don't think I'll ever amount to much.

    1. strongly agree 2. agree 3. disagree 4. strongly disagree

**INSTRUCTIONS:**

In order to better plan our work with you, we would like to know about your everyday activities and hobbies. On this page, Activities of Daily Living, please check one column for each activity.

On the next page, Leisure Time Activities, check one column indicating how often you engage in each activity and check column 4 if you would like to be doing more of the particular activity.

## ACTIVITIES OF DAILY LIVING

| | 1 am not doing | 2 am doing some | 3 am doing regularly | 0 does not apply |
|---|---|---|---|---|
| Help with household chores | ____ | ____ | ____ | ____ |
| Visit friends | ____ | ____ | ____ | ____ |
| Visit relatives | ____ | ____ | ____ | ____ |
| Entertain friends at home | ____ | ____ | ____ | ____ |
| Dress and take care of myself | ____ | ____ | ____ | ____ |
| Help with the family budgeting | ____ | ____ | ____ | ____ |
| Remember to do important things on time | ____ | ____ | ____ | ____ |
| Get along with family members | ____ | ____ | ____ | ____ |
| Go to parties and other social activities | ____ | ____ | ____ | ____ |
| Get along with neighbors | ____ | ____ | ____ | ____ |
| Help with family shopping | ____ | ____ | ____ | ____ |
| Help in the care and training of children | ____ | ____ | ____ | ____ |
| Go to church | ____ | ____ | ____ | ____ |
| Take up hobbies | ____ | ____ | ____ | ____ |
| Work | ____ | ____ | ____ | ____ |
| Support the family | ____ | ____ | ____ | ____ |

# LEISURE TIME ACTIVITIES

| | 1 practically never | 2 sometimes | 3 frequently | 0 does not apply | 4 would like to do more of this |
|---|---|---|---|---|---|
| Work in and around house . . . | ____ | ____ | ____ | ____ | ____ |
| Work in garden or yard . . . . | ____ | ____ | ____ | ____ | ____ |
| Work on some hobby . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Listen to the radio . . . . . | ____ | ____ | ____ | ____ | ____ |
| Watch television . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Write letters. . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Go to the movies . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Attend lectures, theater . . . | ____ | ____ | ____ | ____ | ____ |
| Attend club, lodge, other meetings . . . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Sh[illegible] . . . . . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Take part in community or church work . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Bowl or other sports . . . . . | ____ | ____ | ____ | ____ | ____ |
| Play cards or other table games . . . . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Take rides . . . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Visit friends . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Entertain friends . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Sew, crochet, or knit . . . . | ____ | ____ | ____ | ____ | ____ |
| Read . . . . . . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Go to the library . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Just sit and think . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Ta[illegible] courses at home . . . . . | ____ | ____ | ____ | ____ | ____ |
| Go to school . . . . . . . . . | ____ | ____ | ____ | ____ | ____ |
| Other (what?) . . . . . . . . | ____ | ____ | ____ | ____ | ____ |

# SCL-90-R

## INSTRUCTIONS

Below is a list of problems and complaints that people sometimes have. Read each carefully, nd select one of the numbered descriptors that best describes HOW MUCH DISCOMFORT THAT ROBLEM HAS CAUSED YOU DURING THE PAST WEEK INCLUDING TODAY. Place that number in the open block to the right of the problem. Do not skip items, and print your number clearly. If you change your mind, erase your first number completely. Read the example below before beginning, and if you have any questions please ask the technician.

**EXAMPLE**

HOW MUCH WERE YOU DISTRESSED BY:

| | Ans. |
|---|---|
| EX. Body Aches . . . . | 3 |

Descriptors

0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

HOW MUCH WERE YOU DISTRESSED BY:

Descriptors

0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

1. Headaches . . . . . . . . . . . . . ____
2. Nervousness or shaking inside . . ____
3. Repeated unpleasant thoughts that won't leave your mind . . . ____
4. Faintness or dizziness . . . . . . ____
5. Loss of sexual interest or pleasure . . . . . . . . . . . . ____
6. Feeling critical of others . . . ____
7. The idea that someone else can control your thoughts . . . . . . . ____
8. Feeling others are to blame for most of your troubles . . . . . . . ____
9. Trouble remembering things . . . ____
10. Worried about sloppiness or carelessness . . . . . . . . . . . ____
11. Feeling easily annoyed or irritated . . . . . . . . . . . . . ____
12. Pains in heart or chest . . . . . ____
13. Feeling afraid in open spaces or on the streets . . . . . . . . . ____
14. Feeling low in energy or slowed down . . . . . . . . . . . . ____
15. Thoughts of ending your life . . ____
16. Hearing voices that other people do not hear . . . . . . . . ____

. Trembling . . . . . . . . . . . . ____

18. Feeling that most people cannot be trusted . . . . . . . . ____
19. Poor appetite . . . . . . . . . . ____
20. Crying easily . . . . . . . . . . ____
21. Feeling shy or uneasy with the opposite sex . . . . . . . . . . ____
22. Feelings of being trapped or caught . . . . . . . . . . . . . . ____
23. Suddenly scared for no reason . ____
24. Temper outbursts that you could not control . . . . . . . . . . ____
25. Feeling afraid to go out of your house alone . . . . . . . . . . . ____
26. Blaming yourself for things . . ____
27. Pains in lower back . . . . . . . ____
28. Feeling blocked in getting things done . . . . . . . . . . . ____
29. Feeling lonely . . . . . . . . . ____
30. Feeling blue . . . . . . . . . . . ____
31. Worrying too much about things. ____
32. Feeling no interest in things . ____
33. Feeling fearful . . . . . . . . . ____
34. Your feelings being easily hurt ____
35. Other people being aware of your private thoughts ____

HOW MUCH WERE YOU DISTRESSED BY:

**Descriptors**
0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

36. Feeling others do not understand you or are unsympathetic . . . . ____
37. Feeling that people are unfriendly or dislike you . . . . ____
38. Having to do things very slowly to insure correctness . . . . . ____
39. Heart pounding or racing . . . . ____
40. Nausea or upset stomach . . . . ____
41. Feeling inferior to others . . . ____
42. Soreness of your muscles . . . ____
43. Feeling that you are watched or talked about by others . . . . . ____
44. Trouble falling asleep . . . . . ____
45. Having to check and doublecheck what you do . . . . . . . . . . ____
4[illegible]. Difficulty making decisions. . . ____
47. Feeling afraid to travel on buses, subways, or trains . . . . . . . ____
48. Trouble getting your breath . . ____
49. Hot or cold spells . . . . . . . ____
50. Having to avoid certain things, places, or activities because they frighten you . . . . . . . ____
51. Your mind going blank . . . . . ____
52. Numbness or tingling in parts of your body . . . . . . . . . . . ____
53. A lump in your throat . . . . . ____
54. Feeling hopeless about the future . . . . . . . . . . . . ____
55. Trouble concentrating . . . . . ____
56. Feeling weak in parts of your body . . . . . . . . . . . . . ____
5[illegible] Feeling tense or keyed up . . . ____
58. Heavy feelings in your arms or legs . . . . . . . . . . . . . . ____

HOW MUCH WERE YOU DISTRESSED BY:

**Descriptors**
0 Not at all
1 A little bi
2 Moderately
3 Quite a bit
4 Extremely

59. Thoughts of death or dying . . . . ____
60. Overeating . . . . . . . . . . . . ____
61. Feeling uneasy when people are watching or talking about you . . ____
62. Having thoughts that are not your own . . . . . . . . . . . . . ____
63. Having urges to beat, injure or harm someone . . . . . . . . . . ____
64. Awakening in the early morning . . ____
65. Having to repeat the same actions such as touching, counting washing. . . . . . . . . . . . . ____
66. Sleep that is restless or disturbed . . . . . . . . . . . . ____
67. Having urges to break or smash things . . . . . . . . . . . ____
68. Having ideas or beliefs that others do not share . . . . . . . ____
69. Feeling very self-conscious with others . . . . . . . . . . . ____
70. Feeling uneasy in crowds, such as shopping or at a movie . . . . . . ____
71. Feeling everything is an effort . ____
72. Spells of terror or panic . . . . ____
73. Feeling uncomfortable about eating or drinking in public. . . . . . . ____
74. Getting into frequent arguments . ____
75. Feeling nervous when you are left alone . . . . . . . . . . . ____
76. Others not giving you proper credit for your achievements . . . ____
77. Feeling lonely even when you are with people . . . . . . . . . . ____
78. Feeling so restless you couldn't sit still . . . . . . . . . . . ____
79. Feelings of worthlessness . . . . ____

# SCL-90-R

HOW MUCH WERE YOU DISTRESSED BY:

**Descriptors**
0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

80. The feeling that something bad is going to happen to you . . . . . ______
81. Shouting or throwing things . . ______
82. Feeling afraid you will faint in public . . . . . . . . . . . . . ______
83. Feeling that people will take advantage of you if you let them . . . . . . . . . . . . . . ______
84. Having thoughts about sex that bother you a lot . . . . . . . . ______
85. The idea that you should be punished for your sins . . . . . ______

HOW MUCH WERE YOU DISTRESSED BY:

**Descriptor**
0 Not at a
1 A little
2 Moderate
3 Quite a
4 Extremel

86. Thoughts and images of a frightening nature . . . . . . . . .
87. The idea that something serious is wrong with your body . . . . .
88. Never feeling close to another person . . . . . . . . . . . . . .
89. Feelings of guilt . . . . . . . .
90. The idea that something is wrong with your mind . . . . . . . . . .

```
FOLLOWING ARE THE PRINTED RAW SCORES ORGANIZED BY SYMPTOM

SOMATIZATION
 1     3     0     0     1     3     1     0     3     1     1     1
  SESSIVE-COMPULSIVE
       4     4     3     3     3     3     1     3     3
INTERPERSONAL SENSITIVITY
 4     3     4     2     3     3     2     4     3
DEPRESSION
 0     3     2     0     3     4     4     2     4     0     3     4     4
ANXIETY
 3     1     2     4     3     4     4     4     4     1
HOSTILITY
 4     1     1     3     0     0
PHOBIC ANXIETY
 0     0     0     3     3     3     0
PARANOID IDEATION
 2     2     1     3     3     3
PSYCHOTICISM
 1     0     0     0     1     4     4     1     4     4
ADDITIONAL ITEMS
 0     1     3     3     3     0     4



***************SUBSCORES*************************

   ATIZATION                                 1.25
. SESSIVE-COMPULSIVE                         3.10
INTERPERSONAL SENSITIVITY                    3.11
DEPRESSION                                   2.54
ANXIETY                                      3.00
HOSTILITY                                    1.50
PHOBIC ANXIETY                               1.29
PARANOID IDEATION                            2.33
PSYCHOTICISM                                 1.90



*************GLOBAL SCORES***********************

GLOBAL SEVERITY INDEX                        2.24
POSITIVE SYMPTOM DISTRESS INDEX              2.77
POSITIVE SYMPTOM TOTAL                      73.00


R;
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Which of the following work related activities have you done in the past six months? How often?

| | Activity | Frequency |
|---|---|---|
| 1. | Vocational counseling | |
| 2. | Vocational testing | |
| 3. | Consulted an employment agency | |
| 4. | Read employment "want" ads | |
| 5. | Had job interview | |
| 6. | Phoned about a job placement | |
| 7. | Asked about a job placement | |
| 8. | Worked in the Transitional Employment Program (TEP) | |
| 9. | Held a temporary job | |
| 10. | Volunteer work | |
| 11. | Sought occupational information | |
| 12. | Talked to my therapist about working | |
| 13. | Talked to a friend about working | |
| 14. | Applied for a job | |
| 15. | Applied for job training | |
| 16. | Attended school | |
| 17. | Other: (explain) | |
| 18. | Other: (explain) | |

# APPENDIX IV

## I. REALITY TESTING

a 1. Do you ever have trouble deciding whether something really happened or if it was a dream?

a 2. Have you ever wondered if a thing only happened in your mind?

a,b 3. Have you ever been surprised to find that what you thought was going on really wasn't?

b 4. Do you sometimes feel that you see what you want to see rather than what's really there? Like an ostrich burying his head in the sand?

b 5. Do you ever read into other people's behavior things that really aren't there? Has anyone ever told you that you do this?

b 6. Do you have the feeling that you're out of touch? Is it important for you to be in touch with everything about you? (Or: Does it upset you when you don't know what's going on?)

b 7. Have you ever been confused about things? Have people ever told you you're confused about things? Do you get confused easily? Disoriented? (Time, place, people)

a,b, c 8. Have others ever told you that you're not with it? Out of step with the rest of the world? Do you think they're right?

b 9. Do people often misunderstand what you are trying to tell them?

a,b 10. Have you ever been told by people that what you say doesn't make sense? That your ideas are way off?

a 11. Have you ever been convinced of the reality of something even though everyone around you disagreed? Has this been about things you saw? heard? thought?

c 12. When you distort and misinterpret things, are you able to correct those notions?

a,c 13. Have you ever heard strange sounds in your ears that you couldn't account for on a physiological basis? Ever heard voices? What about visual experiences? In such cases, have you known that the voice (or whatever) couldn't be real even though it seemed real at the time?

a 14. Have you ever hallucinated?

c 15. How did you eventually find out that you had been hallucinating?

c 16. Do you pay attention to what goes on inside of you, like emotions, aches and pains? Possibly too much attention?

## II. JUDGMENT

c 1. What are some of the things you've done which have shown poor judgment?

c 2. Do you care what other people think of you?

c 3. Have you ever felt awkward socially? Have you ever put your foot in your mouth or offended someone without intending to?

a,c 4. Are you good at sizing people up? At anticipating their responses to you?

c 5. Have you had the experience of being shocked or surprised that something you did had rubbed people the wrong way? Or when you thought you were being pleasant, you had actually annoyed someone or made him angry?

c,a 6. Do you ever find that you misjudge people?

a,b 7. Are you ever too trusting of people?

a 8. How do you go about making decisions? (Like taking a new job, quitting school, breaking up with a girlfriend/boyfriend, getting married?) Do you consider all the angles or do you act without thinking too long about things?

a 9. Are you a planner in that you think a lot about the consequences of what you might do? Do you have trouble estimating how long it would take or how much work is required in getting something done?

a,b 10. Are you an impulsive person? Are you careless with yourself or your health?

b 11. Are you a daredevil? Do you like to take chances? What if other people are involved?

a,b 12. Have you ever felt that you could get away with things that the average person couldn't? Like doing something risky that could get you into trouble? Like applying for a job for which you had no proper skills or training? Like speeding or driving without a license? If you get away with it, is it luck or something else?

b 13. Do you ever do dangerous things, like walking around the city at night (unaccompanied)? Opening your door to strangers before you know what they want? Riding in a car with defective brakes?

## III. SENSE OF REALITY

a 1. Most people sometimes have the experience that things are happening that have happened before, like a déjà vu. Have you ever had this experience? Like you had been to a certain place before, or heard, thought, or said something, even though you knew it couldn't possibly be so? Did you wonder if it really happened or was just your imagination?

a 2. Do people and things around you sometimes feel unreal to you? As though they really weren't there, or couldn't have happened?

a 3. Do people and things sometimes look foggy or as though seen through a haze, or perhaps as though there were a glass wall between you and the rest of the world?

a 4. Have people and things ever looked closer or further away, larger or smaller than you know them actually to be?

b 5. Have you ever felt as though you were walking around in a trance?

b 6. Have you ever felt that you were not real?

b 7. Have you ever had strange feelings in various parts of your body that there was no physical explanation for? (As if electricity was going through you; as if your head, tongue, or some other part of your body was feeling much bigger or smaller than usual; as if some part of your body is changing shape; or as if you were literally physically empty or had a hole in your stomach?)

a 8. Have you ever had a physical subjective feeling or sensation as though the world were going to collapse or fall apart? As though you could cause it, for example, by some act, thought, dream?

c 9. Do you spend much time thinking about the question "Who am I?"

d 10. Have you ever had trouble feeling yourself to be a person separate and independent from other people?

c,d 11. Describe yourself.

c 12. Do you have special ways to make yourself feel good about yourself?

c 13. What kinds of things make you feel humiliated?

c,d 14. Are you more affected in your opinions about yourself if someone says you're great or if someone says you're doing terribly?

c,d 15. Can you tell me of any times when you feel important or good living through someone else's accomplishment? Because they are perhaps intelligent, good-looking, popular, or very successful? When they're not around, do you get depressed or feel generally bad?

d 16. Is it very important for you to feel as though you were in special communication with someone else? Feeling merged or fused together? Do you feel you can read someone's mind, or they yours? Have you ever believed you possessed a capacity for ESP?

a,b, c,d 17. Do you smoke pot or take other drugs? What kinds of feelings does this give you? Do they effect any of the things we've just discussed? Even after the effect of the drug has worn off?

## IV. REGULATION AND CONTROL OF DRIVE, AFFECT, AND IMPULSE

a 1. Do you have a lot of drive to be physically active? Do you have to be on the go all the time? Or do you ever find it hard to get going?

a,b 2. Do you tend to be emotional and excitable about things, or are you relatively calm and detached? Do you consider yourself to be an undercontrolled or an overcontrolled person? What do other people think about you?

b 3. Do you ever have rapid changes in your mood -- going from high to low rather quickly?

b 4. Have other people ever told you that you were overdramatizing or overreacting to something?

a,b 5. Are you a defiant or rebellious person? Are you spiteful? Do you tend to be well behaved? Polite?

a 6. Are you a patient or impatient person?

b 7. If you don't get your way or what you want immediately, how do you react? Are you easily frustrated? Can you stand frustration for any length of time?

b 8. How well do you think you tolerate feelings of anxiety when there is no immediate way of getting rid of them? How do you get relief from anxiety?

a,b 9. Do you feel much inner pressure to act? Pressure to talk?

a 10. Do you find it hard to be frank and direct about the way you feel? About something you want?

a 11. Do you spend much time daydreaming about things you want or about things you'd like to be? Do you find daydreaming more pleasant or satisfying than reality?

a,b 12. What sort of things make you angry? How angry do you get?

A. How are these feelings expressed? Do they come out directly or do you do something else with them? Think? Dream? Daydream?

B. Do you argue? Throw things? Hit people? Ever wanted to kill someone?

C. Do you think you control these feelings too well or not enough?

a,b 13. What sort of things make you sad, blue, depressed? Are you sad a lot or a little?

A. What do you do when you are feeling depressed?

B. Do you cry a lot? Ever wish you would die? Did you ever think about committing suicide? Ever actually try it?

C. How well or poorly do you think you control emotions like these?

a,b 14. A. What are the usual outlets for your sexual feelings? How frequently does this occur?

B. How often do you masturbate? Under what circumstances? Any fantasies?

C. In general, do you think a lot or a little about sex? Do you dream or daydream about sex? Do these thoughts or feelings ever worry you?

D. Under what circumstances have your sexual urges been stronger than is usual for you? Weaker?

E. Have you ever had the urge to do certain things sexually that you've thought it would be better not to do? Or that you would't dare do?

F. Do your sexual feelings ever get out of control? Or do you feel that you control them too much?

## V. OBJECT RELATIONS

a,b c,d 1. What was your father like? Your mother? How was your home life? Your current home life?

a,b c,d 2. How do you get along with your girlfriend/spouse/boss/parent?

b 3. Have you discovered that no matter how hard you try to avoid them, the same difficulties crop up in most important relationships?

b 4. Do you keep getting involved with the same kind of person? Like even when you thought he/she was going to be different?

a,d 5. Do you generally prefer to be close to people or keep your distance? How do you feel most comfortable, with intense relationships or cool ones? Which kinds for which sorts of things?

a,d 6. Is it hard to get close? To stay close? What are the kinds of things that make you want to retain distance? In close relationships do you often reach a point where things are getting too intimate? So that you've wanted to or actually have broken it up?

a,d 7. Have you ever run away from or broken up a relationship for fear of getting hurt if you got too close? Or do you find it hard to let go even when things are going bad?

d 8. Did you ever feel that someone rejected you or a friend abandoned you?

d 9. How easily are your feelings hurt? Are you sensitive to criticism? To being left out of things? Do you often feel you've been rejected or abandoned?

a,d 10. Have you been hurt a lot in your life? Have you felt it's your fate to always be on the losing end? When you are hurt, do you have ways of trying or wishing to get back?

a,d 11. Have there ever been times in your life when you had to live alone? Or wanted very much to live alone? How do you feel when "X" (whomever patient lives with) is away for the weekend? Or longer?

a,d 12. Have you ever gone to a restaurant or movie alone?

c 13. How well do you understand other people? How well do they understand you?

c 14. Have you felt that things would be all right if only he/she/they would change?

c 15. Do you try to change the way people are and how they act so that they'd be the way you'd like them?

c 16. How do you get what you want from other people?

c 17. What kinds of things do you do to make people pay attention to you? (Life of the party, crying, temper, dressing well, etc.)

c 18. Do you enjoy exercising power over other people? Is that a secret pleasure?

a 19. Who handles what in your household? Like making major decisions. (Who's responsible for the caring of children? Who handles finances?) Who really runs things?

a 20. Who usually makes the initial approaches for sex, you or your girlfriend/boyfriend/spouse? Immediately after sex, what do you like to do?

a 21. Have you ever been involved in love affairs or involved sexually with more than one person at a time? Is this (or would this be) difficult for you to sustain emotionally, or do you (or do you think you would) prefer it that way?

22. Do you play games like "cat and mouse" with people close to you?

## VI. THOUGHT PROCESSES

a 1. Do you have trouble keeping your mind on what you're doing? For example, when reading a book or newspaper, do you find yourself being distracted by noises or find your attention wandering?

a 2. How well do you concentrate? Is it ever difficult for you? When? Do you ever find that you have so many thoughts racing through your mind that you can't concentrate on any particular thing?

a 3. Do you ever think of yourself as a forgetful person?

a 4. If you think as far back as you can, what's the earliest thing you remember? What are the most significant things you remember about your early years?

a,b 5. Are you ever troubled by thoughts that seem to stick in your mind so that you can't get rid of them? Do they ever seem to run on by themselves without your control? Tell me about them. What ideas do you have about how they got there?

b 6. Do you ever have thoughts that you think others would not understand? Tell me about them.

b 7. What's foolish, or does not make good sense, about these:

A. They put a cake of ice on the stove to keep it from melting.

B. As he crossed the finish-line ahead of his rivals, he saw them still running in front of him.

a,b 8. What are these sayings supposed to mean?

A. You catch more flies with honey than with vinegar.

B. Strike while the iron is hot.

9. In what way are an orange and a banana alike? A coat and a dress? An axe and a saw? A dog and a lion? North and West? Eye and Ear? Air and Water? A table and a chair? An egg and a seed? A poem and statue? Wood and alcohol? Praise and punishment? A fly and a tree?

## VII. ARISE

a,b 1. What do you do when you're alone and have nothing to do?

a,b 2. Do you daydream? What about? Are they more like fantasies, or do they involve thoughts and plans about actual things you may be doing?

a,b 3. Describe one of the most creative ideas you've ever had.

a 4. Are you ever able to let go and think strange and "nutty" thoughts without being upset or frightened? Describe one of the wildest, most fantastic ideas you've ever had. Do you ever get so carried away by your own ideas that it's hard to come back "down to earth"?

a,b 5. What is one of the most creative things you've ever done? What is the most spontaneous thing you've ever done? Are you generally spontaneous?

a,b 6. When you listen to the kind of music you enjoy, what's it like? What about art? Poetry? Literature? Making things? Inventing things?

7. Do you like to cook? Do you usually follow recipes or do you prefer making things up as you go along?

## VIII. DEFENSIVE FUNCTIONING

b 1. Do things easily upset you? Which things? Do you ever feel restless or jumpy and not know why? How long do these feelings last? Do you have any special ways of getting rid of such feelings?

b 2. Are you an anxious person? Describe your feelings.

b 3. Do you feel you have ways to protect yourself from too many worries and anxieties?

b 4. Have you ever felt that you were falling apart? Rocky? Cracking up?

a 5. When things throw you, how well are you able to pull yourself together afterwards?

a 6. Do you ever find that you don't catch on to jokes that everyone around you is laughing at? Or that you miss the point of things?

b 7. Do you ever have strange or frightening thoughts? Nightmares? Tell me about them.

a 8. Do you have any special fears? Like claustrophobia, fear of travel, fear of crowds?

a 9. Have you ever been concerned about what other people are saying about you?

## IX. STIMULUS BARRIER

a 1. Are you especially sensitive to anything like light, sound, or temperature?

b 2. Have you ever been irritable or jumpy when there's too much noise around you?

b 3. What do you do if you are bothered (by the above)? Accept it? Grin and bear it? React in some way to show how uncomfortable you are? Tune it out yet still not leave the scene?

b 4. Do you ever seek solitude when outside irritants get to be too much?

b 5. Do you ever feel like "jumping out of your skin" if things get too much for you?

a 6. Do you have particularly sensitive skin? Any itching that nobody found a satisfactory explanation for?

a,b 7. How long does it usually take you to fall asleep? What seems to keep you up? Anything like light or sound or things outside of yourself?

a,b 8. Are you easily awakened by traffic noises? Lights if the shades aren't down all the way? Any other sleep problems?

a,b 9. (For women) Just before your menstral periods, do you ever feel particularly bad? (Tense, depressed, irritable?) What do you do about it? (Go about your business? Stay in bed? Keep away from people as much as possible?)

a,b 10. Are you sick often? Can you feel an illness coming on, or does it usually get pretty advanced before you realize that you are sick?

a,b 11. Do you get headaches often? What brings them on?

a 12. Have you ever been regarded as the "Princess on the Pea" (or male equivalent) — extremely sensitive, fragile, delicate, to be treated with kid gloves?

a 13. Do you get bored when things aren't exciting enough? Does excitement rattle you?

a,b 14. After being in some peaceful state (like being away in a quiet place, as for a weekend or a vacation) how do you feel getting back to the pace, din, noise of everyday life?

## X. AUTONOMOUS FUNCTIONING

a 1. Does reading ever make you tense? Have you ever had trouble with hearing or vision that you know is not caused by any physical illness or defect? When you are upset or excited, do you forget things that are ordinarily easy to remember?

a 2. Do you ever get tongue-tied? Does your speech ever get garbled when you are self-consious or embarrassed?

a 3. Are you physically awkward? Is this generally true or only in special situations?

a,b 4. Have you ever had trouble with routine things, like getting dressed, walking down steps, or carrying on with your usual work routine?

a 5. Do you ever get lost in the middle of what you're doing so that you have to stop and think about what the next step is?

a,b 6. How is your energy or drive level? Have you ever felt so lacking in energy that you couldn't carry through with things that you ordinarily do? Have you ever had any work blocks?

b 7. Is it hard to get going on something that you want to do? Are you at all lazy? About what sort of things?

b 8. When you get some free or leisure time, do you get to carry out the things you had just thought about when you were too busy or do you procrastinate?

## XI. SYNTHETIC-INTEGRATIVE FUNCTIONING

b 1. Can you adapt easily to change or does it throw you out of gear? Like changes in your usual routine, or where you suddenly have to change plans?

a,b 2. When you're busy doing one thing and then something else comes up that needs to be done, can you continue doing what you were originally doing? Can you do both at once?

a 3. Do you think it's only possible to do one major thing well? For instance, can a person be both a leader and a follower? A student and a teacher? Can you imagine being both a leader and a follower yourself?

a 4. (For women) Can you imagine (How do you find) being a mother and holding down some job? How might you accomplish this?

a 5. (For men) Can you imagine being in charge of things at home but mostly following instructions at work? Can a man really be both ways? How might you accomplish this?

a 6. Can you imagine a serious job being fun, or do you think that work is work and play is play?

a 7. Do you often find yourself doing or saying things that seem very unlike you? When you don't really feel or act like yourself? Do you feel surprised?

b 8. How well organized are you in your daily life? What sorts of things disorganize you?

b 9. Do you like to live from day to day or do you prefer planning for the future? To what extent?

b 10. Are you bothered by having bits and pieces or loose ends around? To what extent do you need to tie things together and how well are you able to do this? How well can you stand things being left undone and up in the air?

## XII. MASTERY AND COMPETENCE

a 1. Do you function as well as you believe you are capable of functioning? If not, what do you think gets in the way?

a 2. Do you feel that you generally stay on top of things? Do you like to be in charge of things?

a,b 3. Do you live up to your own expectations of yourself? Have you ever felt that you could make more of yourself and your life than you have thus far?

b 4. Do you ever feel that you are missing out on life? Why do you think this is so?

b 5. Do you feel very much at the mercy of events, or do you feel that you are master of your own fate? Do you feel that you could effectively alter your life or influence the people around you to get what you want and need?

## SUPEREGO QUESTIONS

1. Does your conscience bother you a lot or a little? Are you strict with yourself or lenient?
2. Do you feel guilty a lot or a little? Do you sometimes feel guilty about things that you know aren't your fault?
3. Do you often stew over something you have said or done and wished you had not said or done it?
4. How often do you get feelings of unworthiness or of being just no good?
5. What are your expectations of how you ought to be? Are you a person who expects too much of yourself? Too little? Do you live up to the expectations of your parents?
6. Are you particularly concerned about the meaning of right and wrong? Whether a thing is moral, ethical, proper?
7. Do you think people are generally responsible?
8. Do you believe our society permits too much or too little sexual expression? What about expression of angry feelings?
9. To what extent would you be willing to step on others' toes to achieve something really important?

VRP #SREG-116

Name ____________________

Rater ____________________

Date ____________________

## EGO FUNCTIONING PROFILE

| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | Superego | | | | Id scales | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reality Testing | Judgment | Sense of Reality | Regulat. & Cont. of Drives | Object Relat. | Thought Process | ARISE | Defensive Functs. | Stimulus Barrier | Auton. Functs. | Synthet. Functs. | Mastery-Cmptnc. | Interference (w/ ego functions) | Consistency of Superego | Overall Superego Adaptiveness | | Libidinal Drive | Aggressive Drive | Sublimation (libidinal drive) | Sublimation (aggressive drive) | |
| 13 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | -3 | | | | | |

Ego functions

12/80

# APPENDIX V

VRP #SREG-116

Name ______________________________

Interviewer ______________________________

Date ______________________________

# EMPLOYMENT HISTORY

Have you ever worked?

If yes, complete the following:

| DATES | TYPE OF WORK | LENGTH OF TIME WORKED (IN MONTHS) | FULL-TIME OR PART-TIME |
|---|---|---|---|
| | | | |
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Comments (e.g., spot jobs, etc.): ______________________________

100

VRP #SREG-116

Name ______________________________

Have you worked in the past six months?

If yes, complete the following:

| | | | | | | |
|---|---|---|---|---|---|---|
| Month | | | | | | |
| Number of Weeks Worked | | | | | | |
| Type of Work | | | | | | |
| Full-time or Part-time | | | | | | |
| Comments on Satisfaction | | | | | | |